

Select Committee on Pension Policy

P.O. Box 40914
Olympia, WA 98504-0914
actuary_st@leg.wa.gov

May 18, 2004

9:30 AM - 4:00 PM

Senate Conference Rooms A-B-C, Olympia

REVISED AGENDA

- 9:30 AM **(1) Summary of States' Pension Issues and Federal Legislation**
- Ron Snell, National Conference of State Legislatures (NCSL)
 - Gerri Madrid Davis, NCSL Washington Office
- 10:30 AM **(2) Emerging Issues in Washington (Panel Discussion)**
- Elaine Banks representing Retirees
 - Corky Mattingly representing Employers
 - Randy Parr representing Active Members
 - John Charles, Director, Department of Retirement Systems, and Chair, Employee Retirement Benefits Board
 - Steve Nelsen, Director, LEOFF 2 Board
 - Joe Dear, Director, State Investment Board
 - Matt Smith, State Actuary
- Noon **LUNCH**
- 1 PM **(3) Committee Member Priorities for Washington Pensions**
- Bruce Feustel, NCSL, Facilitator
- 2:30 PM **BREAK**
- 2:45 PM **(4) Committee Goals and Challenges**
- Bruce Feustel, NCSL
- 3:45 PM **(5) Orientation Manual**
- Laura Harper, Senior Research Analyst Legal
- 4 PM **(6) Adjourn**

Representative Gary Alexander

Elaine M. Banks
TRS Retirees

Marty Brown, Director
Office of Financial Management

Senator Don Carlson

John Charles, Director*
Department of Retirement Systems

Representative Steve Conway*
Chair

Richard Ford
PERS Retirees

Senator Karen Fraser

Representative Bill Fromhold

Leland A. Goeke*
TRS and SERS Employers

Bob Keller
PERS Actives

Corky Mattingly
PERS Employers

Doug Miller
PERS Employers

Glenn Olson
PERS Employers

Representative Cheryl Pflug

Diane Rae
TRS Actives

Senator Debbie Regala

J. Pat Thompson*
PERS Actives

David Westberg
SERS Actives

Senator Shirley Winsley*
Vice Chair

***Executive Committee**

(360) 753-9144

Fax: (360) 586-8135

TDD: 1-800-635-9993

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DRAFT MINUTES

April 20, 2004

The Select Committee on Pension Policy met in Senate Hearing Room 4, Olympia, Washington, on April 20, 2004.

Committee members attending:

| | |
|------------------------------|-------------------------|
| Representative Alexander | Senator Fraser |
| Elaine Banks | Representative Fromhold |
| Marty Brown | Leland A. Goeke |
| Senator Carlson | Robert Keller |
| John Charles | Corky Mattingly |
| Representative Conway, Chair | Glenn Olson |
| Representative Crouse | Pat Thompson |
| Richard Ford | David Westberg |

Representative Conway, Chair, called the meeting to order at 10:35 AM.

(1) Agenda

Representative Conway suggested that item (3) Session Update be moved to the first item on the Agenda.

Representative Conway welcomed new member Representative Crouse to the Committee.

(2) Session Update

Bob Baker, Senior Research Analyst, reviewed the report entitled "Session Update."

(3) Election of Officers

Matt Smith, State Actuary, summarized the reports entitled "Election of Officers" and the "Rules of Procedure."

Break: 11:15 - 11:20 - Members met to discuss the election of officers.

Senator Carlson nominated Senator Winsley as Chair to the Select Committee on Pension Policy. Seconded.

Senator Carlson moved that a unanimous ballot be cast for Senator Winsley for Chair. Seconded.

MOTION CARRIED

Representative Gary Alexander

Elaine M. Banks
TRS Retirees

Marty Brown, Director
Office of Financial Management

Senator Don Carlson

John Charles, Director*
Department of Retirement Systems

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Representative Fromhold nominated Representative Conway as Vice-Chair to the Select Committee on Pension Policy. Seconded.

Senator Carlson moved that a unanimous ballot be cast for Representative Conway for Vice-Chair. Seconded.

MOTION CARRIED

Senator Carlson was named as an alternate to Senator Winsley, Chair.

Executive Committee Members:

Leland A. Goeke was nominated to the Executive Committee representing employers. Seconded.

It was moved that a unanimous ballot be cast for Lee Goeke to the Executive Committee. Seconded.

MOTION CARRIED

J. Pat Thompson nominated David Westberg to the Executive Committee representing employees.
Seconded.

It was moved that a unanimous ballot be cast for David Westberg to the Executive Committee. Seconded.

MOTION CARRIED

Marty Brown, representing OFM, will serve on the Executive Committee with John Charles, Department of Retirement Systems, named as an alternate to the Executive Committee.

(4) Approval of Day's Agenda

*It was moved that the Day's Agenda be approved.
Seconded.*

MOTION CARRIED

(5) Interim Work Plan

Matt Smith, State Actuary, reviewed the handout entitled "Proposed Interim Work Plan."

The following people testified:

*Randy Parr - Washington Education Association
Lynn Maier - Washington Public Employees Association
Chris Merritt - King County Paramedics
John Kvamme - Washington Association of School
Administrators/Association of Washington School Principals
Richard Warbrouck - Retired Firefighters of Washington*

Leslie Main - Washington State School Retirees Association
Bobby Woolley - private citizen
Mitch Denning - Alliance of Educational Associations

(6) May 18, 2004 Meeting Agenda

Sandra Granger, Staff Coordinator, reviewed the May 18th Draft Agenda and gave a brief overview of the orientation where Ron Snell and Bruce Feustal, National Council of State Legislatures, were invited to speak and help facilitate the meeting.

(7) Meeting Dates

Representative Conway suggested that the meeting dates discussion be deferred to the Executive Committee.

The meeting adjourned at 12:35 PM.

SELECT COMMITTEE ON PENSION POLICY

Proposed Meeting Schedule

(May 19, 2004)

April 20, 2004

10 AM - 12:30 PM, Senate Hearing Room 4

Election of Officers
Session Update
Interim Work Plan
Meeting Dates

August 2004

May 18, 2004

9:30 AM - 4 PM, Senate Conf. Room A-B-C

Orientation:

Summary of states' Pension Issues & Federal
Legislation
Emerging Issues in Washington
Member Priorities for Washington Pensions
Committee Goals and Challenges
Orientation Manual

September 2004

October 2004

June 15, 2004

10 AM - 12:30 PM, Senate Hearing Room 4

Adequacy of Benefit
Military Service Credit

November 2004

Legislation

July 2004

December 2004

Legislation

Select Committee on Pension Policy

P.O. Box 40914
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March 5, 2004

Ron Snell
National Conference of State
Legislatures
1560 Broadway, Suite 700
Denver, Colorado 80202

Dear Ron:

On behalf of the Select Committee on Pension Policy, we request your assistance with an orientation we are planning in Olympia on May 18, 2004. Your help with the previous orientation for the Joint Committee on Pension Policy was highly successful and left a very positive memory with those legislators who were fortunate enough to attend.

We envision a session facilitated by Bruce Feustal on central issues and long-term goals and your session providing a summary of other states' pension issues. Committee members are also interested in background and current information on teachers' reciprocity, social security, and private sector pension trends.

We are prepared to pay travel expenses for you and Bruce to come to Olympia for this full-day event.

We look forward to your assistance with this important agenda for the new Select Committee on Pension Policy.

Sincerely,

Representative Steve Conway
Chair

Senator Shirley Winsley
Vice-Chair

cc: Bruce Feustal

Representative Gary Alexander

Elaine M. Banks
TRS Retirees

Marty Brown, Director
Office of Financial Management

Senator Don Carlson

John Charles, Director*
Department of Retirement Systems

Representative Steve Conway*
Chair

Richard Ford
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Doug Miller
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Glenn Olson
PERS Employers

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Diane Rae
TRS Actives

Senator Debbie Regala

J. Pat Thompson*
PERS Actives

David Westberg
SERS Actives

Senator Shirley Winsley*
Vice Chair

***Executive Committee**

CHARACTERISTICS

of 100

LARGE PUBLIC PENSION PLANS

*With Special Emphasis on Plans
Covering Education Employees*

Updated Tables and Footnotes through June 2003

Collective Bargaining and Member Advocacy
(202) 822-7080

January 2004



Great Public Schools for Every Child

TABLE 1.
PLAN MEMBERSHIP AND SOCIAL SECURITY COVERAGE

| State/Fund | Covered Employees | Number of Active Members | Number of Annuitants | Social Security Coverage | Social Security Integration |
|-------------------|--------------------|--------------------------|----------------------|--------------------------|-----------------------------|
| Alabama/TRS | T, HEF, ESP | 128,649 1 | 50,310 1 | Yes | None |
| Alabama/ERS | S, L | 77,693 | 26,399 | Yes | None |
| Alaska/TRS | T, HEF | 9,690 | 7,804 | No | |
| Alaska/PERS | ESP, S, L | 33,242 | 17,215 | No | |
| Arizona/ASRS | T, ESP, HEF, S, L | 198,870 | 60,346 | Yes | None |
| Arkansas/ATRS | T, ESP | 62,011 2 | 19,199 2 | Yes | None |
| Arkansas/PERS | ESP, S, L | 42,230 | 17,748 | Yes | None |
| California/STRS | T, HEF 3 | 442,208 | 177,069 | No | |
| California/PERS | ESP, S, L | 798,322 | 383,545 | Yes 4 | Offset 5 |
| California/UCRS | HEF | 117,776 | 36,165 | Yes 6 | Offset 7 |
| Colorado/PERA | T, ESP, HEF, S, L | 172,761 | 60,548 | No | |
| CO-Denver/DPSRS | T, ESP | 7,722 | 5,610 | No | |
| Connecticut/TRS | T, HEF | 48,902 | 22,303 | No | |
| Connecticut/SERS | S | 54,287 | 32,354 | Yes | Step-up formula |
| Connecticut/CMERS | L | 8,445 | 4,616 | Yes 8 | Step-up formula |
| Delaware/SEPP | T, ESP, HEF, S | 31,951 | 16,233 | Yes | None |
| Florida/FRS | T, ESP, HEF, S, L | 587,616 9 | 215,265 10 | Yes | None |
| Georgia/TRS | T, HEF, ESP | 194,172 | 50,767 | Yes 11 | None |
| Georgia/ERS | S | 73,924 | 27,272 | Yes | None |
| Georgia/PSERS | ESP | 46,551 | 11,917 | Yes 12 | None |
| Hawaii/ERS | T, ESP, HEF, S, L | 62,208 | 28,770 | Yes | None |
| Idaho/PERS | T, ESP, HEF, S, L | 62,376 | 24,018 | Yes | None |
| Illinois/TRS | T (except Chicago) | 155,979 | 67,949 | No | |
| Illinois/IMRF | ESP, L | 167,776 | 74,668 | Yes | None |
| Illinois/SERS | S | 80,680 | 44,557 | Yes | None |
| Illinois/SURS | HEF | 77,778 13 | 34,259 | No | |
| IL-Chicago/PSTPRF | T | 37,374 | 17,867 | No | |

T = Teachers HEF = Higher Education Faculty
ESP = Education Support Professionals S = State L = Local

TABLE 1.
PLAN MEMBERSHIP AND SOCIAL SECURITY COVERAGE (Continued)

| State/Fund | Covered Employees | Number of Active Members | Number of Annuitants | Social Security Coverage | Social Security Integration |
|--------------------------|------------------------------------------------------------|--------------------------|----------------------|--------------------------|-----------------------------|
| Indiana/TRF | T, HEF | 75,343 14 | 34,754 15 | Yes | None |
| Indiana/PERF | ESP, HEF, S, L | 145,019 | 52,490 | Yes | None |
| Iowa/PERS | T, ESP, HEF, S, L | 158,467 | 71,715 | Yes | None |
| Kansas/PERS | T, ESP, HEF, S, L | 147,294 | 57,597 | Yes | None |
| Kentucky/TRS | T, HEF | 54,175 | 33,457 | No 16 | |
| Kentucky/CERS | ESP, L | 88,799 | 29,630 | Yes | None |
| Kentucky/KERS | S | 52,766 | 27,911 | Yes | None |
| Louisiana/TRSL | T, HEF, ESP | 87,356 17 | 49,053 17 | No | |
| Louisiana/LASERS | S | 64,692 18 | 31,887 18 | No | |
| Maine/MSRS | T, ESP, HEF, S, L | 58,810 | 30,098 | No | |
| Maryland/TRS | T, ESP, HEF | 9,270 | 29,989 | Yes | None |
| Maryland/TPS | T, ESP, HEF | 87,086 | 11,931 | Yes | None |
| Maryland/ERS | S | 11,722 | 24,904 | Yes | None |
| Maryland/EPS | S | 76,024 | 16,702 | Yes | None |
| Massachusetts/TRS | T | 80,191 | 37,443 | No | |
| Massachusetts/SERS | HEF, ESP, S | 82,152 | 48,766 | No | |
| Michigan/MPERS | T, ESP, HEF | 326,538 | 135,277 | Yes | None |
| Michigan/MSERS 19 | S | 43,064 | 39,666 | Yes | None |
| Michigan/MERS | L | 37,053 20 | 17,530 20 | Yes | None |
| Minnesota/TRA | T, HEF (except Minneapolis, St. Paul, Duluth, Univ. of MN) | 71,690 | 34,974 | Yes | None |
| Minnesota/PERF | ESP, L | 137,817 | 50,878 | Yes | None |
| Minnesota/SERF | S | 49,099 | 20,805 | Yes | None |
| MN-Minneapolis/MTRFA | T | 5,778 | 3,545 | Yes | None |
| MN-St. Paul/SPTRFA | T | 4,306 | 2,136 | Yes | None |
| Mississippi/PERS | T, ESP, HEF, S, L | 152,148 | 56,705 | Yes | None |
| Missouri/PSRS | T (except St. Louis, Kansas City) | 73,673 | 30,865 | No | |

T = Teachers HEF = Higher Education Faculty
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TABLE 1.
PLAN MEMBERSHIP AND SOCIAL SECURITY COVERAGE (Continued)

| State/Fund | Covered Employees | Number of Active Members | Number of Annuitants | Social Security Coverage | Social Security Integration |
|----------------------------------------|-------------------|--------------------------|----------------------|--------------------------|-----------------------------|
| Missouri/NTRS | ESP | 46,728 | 14,270 | Yes | None |
| MO-St. Louis/ PSRS of St. Louis | T, ESP | 6,311 21 | 3,590 21 | Yes | None |
| Missouri/MOSERS | S, HEF | 58,616 | 21,502 | Yes | None |
| Montana/TRS | T, HEF | 18,199 | 9,342 | Yes | None |
| Montana/PERS | ESP, S, L | 29,808 | 14,116 | Yes | None |
| Nebraska/SRS | T, ESP | 35,974 | 11,363 | Yes | None |
| Nebraska/SERS | S, L | 20,400 22 | None | Yes | None |
| NE-Omaha/OSERS | T, ESP | 6,383 | 2,642 | Yes | None |
| Nevada/PERS | T, ESP, HEF, S, L | 85,224 | 25,535 | No | |
| New Hampshire/ NHRS 23 | T, ESP, S | 46,187 | 16,670 | Yes | Offset |
| New Jersey/TPAF | T | 145,762 | 56,102 | Yes | None |
| New Jersey/PERS | ESP, S, L | 296,895 | 107,671 | Yes | None |
| New Mexico/ERB | T, ESP, HEF | 61,091 | 23,052 | Yes | None |
| New Mexico/PERA | S, L | 49,466 | 19,149 | Yes | None |
| New York/TRS (except New York City) | T, ESP, HEF | 238,360 | 110,858 | Yes | Some programs |
| New York/ERS | ESP, HEF, S, L | 512,209 | 280,997 | Yes | None |
| NY-New York City/TRS | T, ESP, HEF | 95,678 | 51,262 | Yes | Some programs |
| North Carolina/TSERS | T, HEF, S | 297,252 | 112,490 | Yes | None |
| North Carolina/LGERS | L | 118,580 | 31,352 | Yes | None |
| North Dakota/TFFR | T | 9,931 | 5,054 | Yes | None |
| North Dakota/PERS | ESP, S, L | 17,089 | 5,252 | Yes | None |
| Ohio/STRS | T, HEF | 178,557 | 105,300 | No | |
| Ohio/PERS | S, ESP, L | 360,313 | 136,456 | No | |
| Ohio/SERS | ESP | 120,254 | 59,349 | No | |
| Oklahoma/TRS | T, ESP, HEF | 85,366 | 36,515 | Yes | None |
| Oklahoma/PERS | S, L | 44,292 | 21,452 | Yes | None |
| Oregon/PERS | T, ESP, HEF, S, L | 163,923 | 83,223 | Yes | None |

T = Teachers HEF = Higher Education Faculty
ESP = Education Support Professionals S = State L = Local

TABLE 1.
PLAN MEMBERSHIP AND SOCIAL SECURITY COVERAGE (Continued)

| State/Fund | Covered Employees | Number of Active Members | Number of Annuitants | Social Security Coverage | Social Security Integration |
|------------------------|--------------------|--------------------------|----------------------|--------------------------|-----------------------------|
| Pennsylvania/PSERS | T, ESP, HEF | 242,616 | 141,414 | Yes | None |
| Pennsylvania/SERS | S, HEF | 111,059 | 91,228 | Yes | None |
| Pennsylvania/PMRS | L | 7,933 ²⁴ | 2,640 ²⁴ | Yes | None |
| Rhode Island/ERSRI | T, HEF, S | 27,686 | 16,100 | Yes | None |
| Rhode Island/MERS | ESP, L | 7,696 | 3,517 | Yes | None |
| South Carolina/SCRS | T, ESP, HEF, S, L | 204,000 | 78,681 | Yes | None |
| South Dakota/SDRS | T, ESP, HEF, S, L | 35,130 | 15,893 | Yes | Some programs |
| Tennessee/CRS | T, ESP, HEF, S, L | 197,971 ²⁵ | 80,426 | Yes | Step-up formula |
| Texas/TRS | T, ESP, HEF | 820,623 ²⁶ | 201,441 | No | |
| Texas/ERS | S | 150,313 | 48,903 | Yes | None |
| Utah/SRS ²⁷ | T, ESP, S, L | 82,486 | 20,666 | Yes | None |
| Vermont/STRS | T | 10,257 | 3,991 | Yes | None |
| Vermont/MERS | ESP, L | 4,924 | 903 | Yes | None |
| Vermont/VSRS | S | 7,725 | 3,633 | Yes | None |
| Virginia/VRS | T, ESP, HEF, S, L | 310,214 | 103,622 | Yes | Limited |
| Washington/TRS | T, HEF | 66,220 | 33,107 | Yes | None |
| Washington/SERS | ESP ²⁸ | 48,347 | 269 | Yes | None |
| Washington/PERS | S, L ²⁹ | 152,936 | 62,189 | Yes | None |
| West Virginia/TRS | T, ESP, HEF | 22,443 | 24,977 | Yes | None |
| West Virginia/TDC | T, ESP, HEF | 21,000 | None | Yes | None |
| West Virginia/PERS | S, L | 34,736 | 18,190 | Yes | None |
| Wisconsin/WRS | T, ESP, HEF, S, L | 263,883 | 112,142 | Yes | None |
| Wyoming/WRS | T, ESP, HEF, S, L | 31,135 | 14,850 | Yes | None |

T = Teachers HEF = Higher Education Faculty
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Table 1.
Footnotes

- 1** Alabama TRS: Excludes 973 Deferred Retirement Option Plan (DROP) participants; DROP allows members to “retire” while continuing employment for three to five years.
- 2** Arkansas ATRS: Excludes 3,525 Retirement Option Plan (DROP) participants.
- 3** California STRS: K-12 and community college certificated staff.
- 4** California PERS: Majority of members covered by Social Security.
- 5** California PERS: Applies to those members covered by plans which coordinate with Social Security.
- 6** California UCRS: 7,614 actives are without Social Security.
- 7** California UCRS: Applies to those members covered by plans which coordinate with Social Security.
- 8** Connecticut CMERS: Some local employers do not participate in Social Security.
- 9** Florida FRS: Excludes 24,775 Deferred Retirement Option Plan (DROP) participants; DROP allows members to “retire” while continuing employment for up to 60 months.
- 10** Florida FRS: Excludes Deferred Retirement Option Plan (DROP) participants who are “retired” under FRS.
- 11** Georgia TRS: Some local employers do not participate in Social Security.
- 12** Georgia PSERS: Some local employers do not participate in Social Security.
- 13** Illinois SURS: Data in table refers to defined benefit plan membership; self-managed defined contribution plan has 6,384 active members.
- 14** Indiana TRF: At 6/30/02 there were 42,129 active members in the “closed plan;” there were also 27,873 active members in the “new plan.”
- 15** Indiana TRF: At 6/30/02 there were 34,646 annuitants in the “closed plan;” there were also 108 annuitants in the “new plan.”
- 16** Kentucky TRS: Higher Education Faculty, some 4,117 active members, are covered by Social Security.
- 17** Louisiana TSRL: Excludes 5,103 Deferred Retirement Option Plan (DROP) participants.
- 18** Louisiana LASERS: Excludes 2,635 Deferred Retirement Option Plan (DROP) participants.
- 19** Michigan MSERS: New employees hired on or after 3/31/97 participate in a separate defined contribution plan. The defined contribution plan legislation also allowed state employees hired prior to 3/31/97 to withdraw from the defined benefit plan and irrevocably enroll in the defined contribution plan. The closed state employee defined benefit plan covers the majority of state employees.
- 20** Michigan MERS: Does not include 4,743 active members who participate in defined contribution option.
- 21** MO-St. Louis PSRS: Excludes 278 Deferred Retirement Option Plan (DROP) participants.
- 22** Nebraska SERS: Approximately 30 percent of defined contribution plan members converted their assets to the new cash balance plan as of the end of December, 2002. As of January 1, 2003 there were 3,964 active state employees and 1,959 active county employees in the new cash balance plan. All new plan participants are automatically enrolled in new cash balance plan..
- 23** New Hampshire NHRS: Data in table includes Group 1 (non-uniformed employees) and Group 2 (uniformed employees). Group 1 includes 17,186 active teachers and 4,851 retired teachers.

- 24** Pennsylvania PMRS: Does not include 595 active members who participate in defined contribution plan option.
- 25** Tennessee CRS: Includes 66,076 teachers, 43,628 state employees, 17,919 higher education employees and 70,348 political subdivision employees.
- 26** Texas TRS: Includes 86,656 active noncontributing members and excludes 3,290 Deferred Retirement Option Plan (DROP) participants.
- 27** Utah SRS: Data in tables refer to noncontributory system only.
- 28** Washington SERS: Includes only school employees hired after 10/1/77 who participate in the SERS2 and SERS3 plans. School employees hired before 10/1/77 participate in the PERS1 plan.
- 29** Washington PERS: Includes school employees hired before 10/1/77 who participate in the PERS1 plan. School employees hired after 10/1/77 participate in either the SERS2 or SERS3 plans.

TABLE 2.
RETIREMENT ELIGIBILITY

| State/Fund | Normal Retirement Age/Service (A=Any) | Early Retirement Age/Service (A=Any) | Early Retirement Annual Discount (AR = Actuarial Reduction) | Vesting Period | Purchase of Service Credits |
|--------------------------------------------------|---------------------------------------|--------------------------------------|-------------------------------------------------------------|--------------------|-----------------------------|
| Alabama/TRS | 60/10; A/25 | None | ----- | 10 yrs | Yes 1 |
| Alabama/ERS | 60/10; A/25 | None | ----- | 10 yrs | Yes 2 |
| Alaska/TRS | 60/8; A/20 3 | 55/8 4 | AR | 8 yrs | Yes 5 |
| Alaska/PERS | 60/5; A/30 6 | 55/5 7 | 6% | 5 yrs | Yes |
| Arizona/ASRS | 65/A; 62/10; R-80 | 50/5 | ----- 8 | Immediate 9 | Yes 10 |
| Arkansas/ATRS | 60/5; A/28 | A/25 | ----- 11 | 5 yrs | Yes 12 |
| Arkansas/PERS | 65/5; A/28 | 55/5; A/25 | 6% | 5 yrs | Yes |
| California/STRS | 60/5 | 55/5; 50/30 | 6%;3% 13 | 5 yrs | Yes 14 |
| California/PERS 15 | 55/5 | 50/5 | 9% | 5 yrs | Yes |
| California/UCRS | 62/A | 50/5 | AR | 5 yrs | Ltd |
| Colorado/PERA | 65/5; 50/30; R-80 16 | 60/5; 55/20; 50/25 | 4%;3%;6% 17 | 5 yrs | Yes 18 |
| Co-Denver/DPSRS | 65/5; 55/25; 50/30 | 55/15; A/25 | 4% | 5 yrs | Yes 19 |
| Connecticut/TRS | 60/20; A/35 | 55/20; A/25 | 6%; 4% 20 | 10 yrs | Yes 21 |
| Connecticut/SERS - Tier I, Plans B & C 22 | 65/10; 55/25 | 55/10 | AR | 10 yrs | Yes |
| Connecticut/SERS - Tier II 23 | 62/5; 60/25 | 55/10 24 | 3% | 5 yrs 25 | Yes |
| Connecticut/SERS - Tier II-A 23 | 62/5; 60/25 | 55/10 24 | 3% | 5 yrs 25 | Yes |
| Connecticut/CMERS | 55/10; A/25 | A/10 | AR | 5 yrs | Yes |
| Delaware/SEPP | 62/5; 60/15; A/30 | 55/15; A/25 | 2.40% | 5 yrs | Yes 26 |
| Florida/FRS | 62/6; A/30 | A/6 | 5% | 6 yrs | Yes 27 |
| Georgia/TRS | 60/10; A/30 | A/25 | 7% | 10 yrs | Yes 28 |
| Georgia/ERS | 60/10; A/30 | A/25 | 7% | 10 yrs | Yes |
| Georgia/PSERS | 65/10 | 60/10 | 5% | 10 yrs | Yes |

x/y = Age/Service (number of years)
R-n = "Rule of n" where age + Service = a specified number, n

TABLE 2.
RETIREMENT ELIGIBILITY (Continued)

| State/Fund | Normal Retirement Age/Service (A=Any) | Early Retirement Age/Service (A=Any) | Early Retirement Annual Discount (AR = Actuarial Reduction) | Vesting Period | Purchase of Service Credits |
|--------------------------------------------|---------------------------------------|--------------------------------------|-------------------------------------------------------------|-------------------|-----------------------------|
| Hawaii/ERS - Noncontributory ²⁹ | 62/10; 55/30 | 55/20 | 6% | 10 yrs | None |
| Hawaii/ERS - Contributory ³⁰ | 55/5 | A/25 | 5%; 4% ³¹ | 5 yrs | None |
| Idaho/PERS | 65/5; R-90 | 55/5 | 3%; 5.75% ³² | 5 yrs | Yes ³³ |
| Illinois/TRS | 62/5; 60/10; 55/35 | 55/20 | 6% ³⁴ | 5 yrs | Yes ³⁵ |
| Illinois/IMRF | 60/8; 55/35 | 55/8 | 3% ³⁶ | 8 yrs | Ltd ³⁷ |
| Illinois/SERS | 60/8; A/35; R-85 | 55/25 | 6% | 8 yrs | Yes |
| Illinois/SURS | 62/5; 60/8; A/30 | 55/8 | 6% | 8 yrs | Yes ³⁸ |
| IL-Chicago/PSTPRF | 62/5; 55/34 | 55/20 | 6% | 5 yrs | Yes ³⁹ |
| Indiana/TRF | 65/10; 60/15; R-85 | 50/15 | 1.2%; 5% ⁴⁰ | 10 yrs | Yes ⁴¹ |
| Indiana/PERF | 65/10; 60/15; R-85 | 50/15 | 11%; 5% ⁴² | 10 yrs | Yes |
| Iowa/PERS | 65/A; 62/20; R-88 | 55/4 ⁴³ | 3% | 4 yrs (or age 55) | Yes ⁴⁴ |
| Kansas/PERS | 65/A; 62/10; R-85 | 55/10 | 2.4%; 7.2% ⁴⁵ | 10 yrs | Yes ⁴⁶ |
| Kentucky/TRS | 60/5; A/27 | 55/5 | 5% | 5 yrs | Yes ⁴⁷ |
| Kentucky/CERS | 65/4; A/27 | 55/5; A/25 | 5%; 4% ⁴⁸ | 5 yrs | Yes |
| Kentucky/KERS | 65/4; A/27 | 55/5; A/25 | 5%; 4% ⁴⁹ | 5 yrs | Yes |
| Louisiana/TRSL | 60/5; 55/25; A/30 ⁵⁰ | A/20 | AR | 5 yrs | Yes ⁵¹ |
| Louisiana/LASERS | 60/10; 55/25; A/30 | A/20 | AR | 10 yrs | Yes |
| Maine/MSRS | 62/10 ⁵² | A/25 | 6% | 10 yrs | Yes ⁵³ |
| Maryland/TRS | 60/A; A/30 | A/25 | 6% | 5 yrs | Yes ⁵⁴ |
| Maryland/TPS | 62/5; 63/4; 64/3; 65/2; A/30 | 55/15 | 6% | 5 yrs | Yes ⁵⁵ |
| Maryland/ERS | 60/A; A/30 | A/25 | 6% | 5 yrs | Yes |
| Maryland/EPS | 62/5; 63/4; 64/3; 65/2; A/30 | 55/15 | 6% | 5 yrs | Yes |

x/y = Age/Service (number of years)
R-n = "Rule of n" where age + Service = a specified number, n

TABLE 2.
RETIREMENT ELIGIBILITY (Continued)

| State/Fund | Normal Retirement Age/Service (A=Any) | Early Retirement Age/Service (A=Any) | Early Retirement Annual Discount (AR = Actuarial Reduction) | Vesting Period | Purchase of Service Credits |
|--------------------------------|---------------------------------------|--------------------------------------|-------------------------------------------------------------|------------------|-----------------------------|
| Massachusetts/TRS 56 | 65/10 | 55/10; A/20 | --- 57 | 10 yrs | Yes 58 |
| Massachusetts/SERS 59 | 65/10 | 55/10; A/20 | --- 60 | 10 yrs | Yes |
| Michigan/MPERS | 60/10; A/30 61 | 55/15 | 6% | 10 yrs | Yes 62 |
| Michigan/MSERS 63 | 60/10; 55/30 | 55/15 | 6% | 10 yrs 64 | Yes |
| Michigan/MERS | 60/10; 55/15; 50/25 65 | ----- 66 | 6% | 10 yrs 67 | Yes |
| Minnesota/TRA | 65/3; 62/30 68 | 55/3 | 4%-5.5% | 3 yrs | Ltd 69 |
| Minnesota/PERF | 65/3 70 | 55/3 | 6% | 3 yrs | Ltd |
| Minnesota/SERF | 65/1; 62/30 71 | 55/3; A/30 | AR | 3 yrs | Ltd |
| MN-Minneapolis/MTRFA | 65/3; R-90 | 55/3 | AR | 3 yrs | Ltd 72 |
| MN-St. Paul/SPTRFA 73 | 65/3 | 55/3 | AR | 3 yrs | Ltd 74 |
| Mississippi/PERS | 60/4; A/25 | None | ----- | 4 yrs | Yes 75 |
| Missouri/PSRS | 60/5; A/30; R-80 | 55/5; A/25 76 | AR 76 | 5 yrs | Yes 77 |
| Missouri/NTRS | 60/5; A/30; R-80 | 55/5 | AR | 5 yrs | Yes |
| MO-St. Louis/PSRS of St. Louis | 65/A; R-85 | 60/5 | 6.67% | 5 yrs | Yes 78 |
| Missouri/MOSERS | 62/5; R-80 79 | 57/5 79 | 6% 79 | 5 yrs | Yes |
| Montana/TRS | 60/5; A/25 | 50/5 | 6%; 3.6% 80 | 5 yrs | Yes 81 |
| Montana/PERS | 65/A; 60/5; A/30 | 50/5; A/25 | 6%; 3.6% 82 | 5 yrs | Yes 83 |
| Nebraska/SRS | 65/5; R-85 at age 55-64 | 60/5; A/35 | 3% | 5 yrs | Yes 84 |
| Nebraska/SERS | 55/A | ----- | ----- | 3 yrs 85 | None |
| NE-Omaha/OSERS | 65/5; 62/10; R-85 at age 55-61 | 55/10 | 3% 86 | 5 yrs 87 | Yes 88 |
| Nevada/PERS | 65/5; 60/10; A/30 | A/5 | 4% | 5 yrs | Yes 89 |
| New Hampshire/NHRS (Group1) | 60/A | 50/10; R-70 90 | ----- 91 | 10 yrs | Yes 92 |

x/y = Age/Service (number of years)
R-n = "Rule of n" where age + Service = a specified number, n

TABLE 2.
RETIREMENT ELIGIBILITY (Continued)

| State/Fund | Normal Retirement Age/Service (A=Any) | Early Retirement Age/Service (A=Any) | Early Retirement Annual Discount (AR = Actuarial Reduction) | Vesting Period | Purchase of Service Credits |
|----------------------|---------------------------------------|--------------------------------------|-------------------------------------------------------------|-----------------------|-----------------------------|
| New Jersey/TPAF | 60/A | A/25 | 3% ⁹³ | 10 yrs | Yes ⁹⁴ |
| New Jersey/PERS | 60/A | A/25 | 3% ⁹⁵ | 10 yrs | Yes ⁹⁶ |
| New Mexico/ERB | 65/5; A/25; R-75 | R-75 (age < 60) | 2.4%; 7.2% ⁹⁷ | 5 yrs | Yes ⁹⁸ |
| New Mexico/PERA | 65/5; 60/20; A/25 | None | ----- | 5 yrs | Yes |
| New York/TRS | 62/5; 55/30 (Tiers 3,4) | 55/5 | AR | 5 yrs | Ltd ⁹⁹ |
| New York/ERS | 62/5; 55/30 (Tiers 3,4) | 55/5 | 6%; 3% ¹⁰⁰ | 5 yrs | Ltd |
| NY-New York City/TRS | 62/5; 55/30 (Tiers 3,4) | 55/5 | ---- ¹⁰¹ | 5 yrs | Ltd |
| North Carolina/TSERS | 65/5; 60/25; A/30 | 60/5; 50/20 | 3% ¹⁰² | 5 yrs | Yes |
| North Carolina/LGERS | 65/5; 60/25; A/30 | 60/5; 50/20 | 3% ¹⁰³ | 5 yrs | Yes |
| North Dakota/TFFR | 65/3; R-85 | 55/3 | 6% | 3 yrs | Yes ¹⁰⁴ |
| North Dakota/PERS | 65/A; R-85 | 55/3 | 6% | 3 yrs | Yes |
| Ohio/STRS | 65/5; A/30 | 60/5; 55/25 | 3%; 5% ¹⁰⁵ | 5 yrs | Yes ¹⁰⁶ |
| Ohio/PERS | 65/5; A/30 | 60/5; 55/25 | 3%; 5% ¹⁰⁷ | 5 yrs | Yes |
| Ohio/SERS | 65/5; A/30 | 60/5; 55/25 | 3%; 5% ¹⁰⁸ | 5 yrs | Yes ¹⁰⁹ |
| Oklahoma/TRS | 62/10; R-90 ¹¹⁰ | 55/10 | AR | 10 yrs | Yes ¹¹¹ |
| Oklahoma/PERS | 62/6; R-90 ¹¹² | 55/10 | AR | 8 yrs | Yes |
| Oregon/PERS | 58/A; A/30 ¹¹³ | 55/5 | 8% | 5 yrs | Yes ¹¹⁴ |
| Pennsylvania/PSERS | 62/1; 60/30; A/35 | 55/25 | 3% | 5 yrs | Yes ¹¹⁵ |
| Pennsylvania/SERS | 60/3; A/35 | A/5 | AR | 5 yrs | Yes ¹¹⁶ |
| Pennsylvania/PMRS | 65/A ¹¹⁷ | A/24 | 6% | 12 yrs ¹¹⁸ | Yes |
| Rhode Island/ERSRI | 60/10; A/28 | None | ----- | 10 yrs | Yes ¹¹⁹ |
| Rhode Island/MERS | 58/10; A/30 | 50/20 | 6% | 10 yrs | Yes |
| South Carolina/SCRS | 65/A; A/28 | 60/A; 55/25 | ----- ¹²⁰ | 5 yrs | Yes ¹²¹ |

x/y = Age/Service (number of years)
R-n = "Rule of n" where age + Service = a specified number, n

TABLE 2.
RETIREMENT ELIGIBILITY (Continued)

| State/Fund | Normal Retirement Age/Service (A=Any) | Early Retirement Age/Service (A=Any) | Early Retirement Annual Discount (AR = Actuarial Reduction) | Vesting Period | Purchase of Service Credits |
|--------------------------------------------|---------------------------------------|--------------------------------------|-------------------------------------------------------------|----------------------------|-----------------------------|
| South Dakota/SDRS | 65/3; R-85 | 55/3 | 3% | 3 yrs | Yes 122 |
| Tennessee/CRS | 60/5; A/30 | 55/5; A/25 | 4.8%; AR 123 | 5 yrs | Yes 124 |
| Texas/TRS | 65/5; R-80 | 55/5; A/30 | AR | 5 yrs | Yes 125 |
| Texas/ERS | 60/5; R-80 | None | ----- | 5 yrs | Yes 126 |
| Utah/SRS-Noncontributory | 65/4; A/30 | 62/10; 60/20 127 | 3% 128 | 4 yrs | Yes 129 |
| Vermont/STRS - Group C | 62/5; A/30 | 55/5 | 6% | 5 yrs | Yes 130 |
| Vermont/MERS - Group A | 65/5; 55/35 | 55/5 | 6% | 5 yrs | Yes |
| Vermont/MERS - Group B | 62/5; 55/30 | 55/5 | 6% | 5 yrs | Yes |
| Vermont/MERS - Group C | 55/5 | 55/5 | 6% 131 | 5 yrs | Yes |
| Vermont/MERS - Group D 132 | 55/5 | 50/20 | none | 5 yrs | Yes |
| Vermont/MERS - DC Plan | 55/5 | ----- | ----- | 5 yrs | None |
| Vermont/VSRS 133 | 62/5; A/30 | 55/5 | 6% | 5 yrs | Yes |
| Virginia/VRS | 65/5; 50/30 | 55/5; 50/10 | ----- 134 | 5 yrs | Yes 135 |
| Washington/TRS - Plan 1 | A/30; 60/5; 55/25 | ----- | ----- | 5 yrs | Yes 136 |
| Washington/TRS - Plan 2 | 65/5 | 55/20 | 3% | 5 yrs | Yes |
| Washington/TRS - Plan 3 (DB) | 65/10 | 55/10 | 3% | 10 yrs | Yes 137 |
| Washington/SERS - Plan 2 | 65/5 | 55/20 | 3% | 5 yrs | Yes |
| Washington/SERS - Plan 3 (DB) | 65/10 | 55/10 | 3% | 10 yrs | Yes |
| Washington/PERS - Plan 1 | A/30; 60/5; 55/25 | ----- | ----- | 5 yrs | Yes |
| Washington/PERS - Plan 2 | 65/5 | 55/20 | 3% | 5 yrs | Yes |
| Washington/PERS - Plan 3 (DB) | 65/10 | 55/10 | 3% | 10 yrs | Yes |
| West Virginia/TRS | 60/5; 55/30; A/35 | A/30 | AR | 5 yrs | Yes 138 |
| West Virginia/TDC | 55/12 | ----- | ----- | 12 yrs 139 | None |
| West Virginia/PERS | 60/5; R-80 at age 55+ | 55/10;55/20;A/30 | 6% | 5 yrs | Ltd |

x/y = Age/Service (number of years)
R-n = "Rule of n" where age + Service = a specified number, n

TABLE 2.
RETIREMENT ELIGIBILITY (Continued)

| State/Fund | Normal Retirement Age/Service (A=Any) | Early Retirement Age/Service (A=Any) | Early Retirement Annual Discount (AR = Actuarial Reduction) | Vesting Period | Purchase of Service Credits |
|----------------------|----------------------------------------------|---------------------------------------------|--------------------------------------------------------------------|-----------------------|------------------------------------|
| Wisconsin/WRS | 65/A; 57/30 | 55/A | 4.8% | Immediate | Yes 140 |
| Wyoming/WRS | 60/4; R-85 | 50/4; A/25 | 5% | 4 yrs | Yes 141 |

Table 2.

Footnotes

- 1** Alabama TRS: Any active member with a minimum of 10 years of contributing service, exclusive of purchased military service and transferred ERS service, may purchase up to 10 years of out-of-state public service.
- 2** Alabama ERS: Any active member with a minimum of 10 years of contributing service, exclusive of purchased military service, may purchase up to 10 years of out-of-state public service
- 3** Alaska TRS: Or 55/8 if hired before 7/1/90
- 4** Alaska TRS: Or 50/8 if hired before 7/1/90
- 5** Alaska TRS: Can purchase up to 10 years of out-of-state teaching public school service or Alaska private school service. However, the combined total of such outside service and claimed military service cannot exceed 10 years.
- 6** Alaska PERS: Or 55/5 if hired before 7/1/86. Police and fire members with 20 years of service may retire at any age.
- 7** Alaska PERS: Or 50/5 if hired before 7/1/86
- 8** Arizona ASRS: Reduction varies by age and years of service; with 5-10 years of service there is a 3% per year reduction between ages 60 and 62 and a 5% per year reduction between ages 50 and 60; with 10-20 years of service there is a 3% per year reduction between ages 60 and 62 and a 5% per year reduction between ages 50 and 60; with 20 or more years of service there is a 5% per year reduction between ages 50 and 60. However, if the employee meets the rule of 77, the reduction will be limited to 3% for each unit below 80.
- 9** Arizona ASRS: Members vested immediately for benefits, however upon termination, members with less than 5 years of service receive 0% of employer's contributions, employees with 5 to 5.9 years of service receive 25% of employer's contribution, employees with 6 to 6.9 years of service receive 40% of employer's contribution, employees with 7 to 7.9 years of service receive 55% of employer's contribution, employees with 8 to 8.9 years of service receive 70% of employer's contribution, employees with 9 to 9.9 years of service receive 85% of employer's contribution, and employees with 10 or more years of service receive 100% of employer's contribution.
- 10** Arizona ASRS: Service credit may be purchased for any period of employment with another public employer -- federal government and state governments or political subdivisions of the federal government or state governments, even if the service was not covered by a retirement plan. For example, credit may be purchased for out-of-state public teaching service for which no benefit is being received or will be received otherwise. There is no limit on the number of years of such service credit which can be purchased.
- 11** Arkansas ATRS: 5/12 of 1% multiplied by number of months by which time of early retirement precedes the earlier of age 60 or the completion of 28 years service. Example: a retiree with 27 years of service who is 50 years of age can take early retirement with a 5% penalty, while a retiree with 25 years of service who is 59 years of age can also take early retirement with a 5% penalty.
- 12** Arkansas ATRS: Up to 15 years of credit can be purchased for out-of-state public school teaching service or Arkansas private school teaching service.
- 13** California STRS: Early retirement actuarial discount is 6% per year for ages 55-60 and 3% per year for each year younger than 55.
- 14** California STRS: Members may purchase up to 10 years of credit for out-of-state public school teaching service. Members may purchase up to five years of nonqualified service credit or "air time", but such service cannot be used to qualify for the career factor, one-year final compensation, or longevity bonus.
- 15** California PERS: Several plans available, data in table is for "2 Percent at 55" plan covering state miscellaneous and state industrial members (first tier), school members, and university members.

- 16** Colorado PERA: Rule of 80 with minimum age of 55: if age 55-65, normal retirement when age plus service equals 80 (i.e., eliminates the early reduction factor if a member's age and service added together equals 80 and the member is at least age 55).
- 17** Colorado PERA: Early retirement actuarial discount is 4% per year for ages 60-65, 3% per year for ages 55-60, and 6% per year for each year younger than age 55.
- 18** Colorado PERA: One year of service may be purchased for each year of full-time, non-covered public employment, including out-of-state service to a maximum of ten years. The member must have one year of earned service credit with PERA at the time of the purchase if the service credit to be purchased is for non-covered employment with a non-affiliated employer. Effective 11/2003, the cost to purchase Colorado PERA service for general members other than judges and state troopers is 18.1% Highest Average Salary (HAS) if under age 50 and 22.10% HAS if over age 50.
- 19** CO-Denver DPSRS: May purchase up to a maximum of 10 years of service credit for periods of private and public employment not vested in another retirement plan; purchase of private sector only service is limited to 5 years.
- 20** Connecticut TRS: Early retirement annual actuarial discount of 6% for first 5 years and 4% thereafter; with 30 years of service, the actuarial discount is 3% per year.
- 21** Connecticut TRS: May purchase up to 10 years of service credit; out-of-state teaching service credit may be purchased at the rate of 1 year of service out-of-state for each 2 years of active full-time service as a Connecticut teacher.
- 22** Connecticut SERS: Tier I generally applies to employees hired prior to 7/1/84.
- 23** Connecticut SERS: Tier II generally applies to employees first joining the system after 7/1/84, but before 7/1/97. Employees hired after 7/1/97 are covered by Tier II-A. Data in table describe retirement eligibility applicable to Tier II and Tier II-A "all other" members (i.e., non-hazardous duty members).
- 24** Connecticut SERS: For Tier II and Tier II-A, 10 years of service eligibility requirement refers to ten years of "vesting service" (combination of actual service and purchases of various types of leave and service), not actual service.
- 25** Connecticut SERS: For Tier II and Tier II-A, after 5 years of actual service, member has earned a permanent vested right to a benefit; after 10 years of "vesting service" (combination of actual service and purchases of various types of leave and service), member has earned a permanent vested right to a benefit.
- 26** Delaware SEPP: Up to 5 years of credited service for full-time employment performed for another state or political subdivision (e.g., school district) of that state.
- 27** Florida FRS: Can purchase up to 1 year of out-of-state service upon the completion of each year of service earned under FRS up to a maximum of five years, provided the member has completed a minimum of 6 years of creditable service with FRS.
- 28** Georgia TRS: After 5 years of contributing service, members can purchase up to 10 years of service for out-of-state public school teaching experience or Georgia private school teaching experience; the service credit to be purchased is allowed on the basis of 1 year of credit for such service for each additional year of membership service in the public schools of Georgia. TRS members with at least 25 years of service may purchase up to three years of credit for any reason.
- 29** Hawaii ERS: Noncontributory plan applies to employees hired after 6/30/84 who are covered by Social Security; contributory plan applies to other employees.
- 30** Hawaii ERS: Contributory plan applies to employees hired before 6/30/84.
- 31** Hawaii ERS: Early retirement actuarial discount for contributory plan is 5% for ages 50-54 and 4% for years under age 50.
- 32** Idaho PERS: Early retirement annual actuarial discount of 3% for first 5 years (points) and 5.75% for second 5 years (points).
- 33** Idaho PERS: May purchase up to 4 years of service credit for any reason.

- 34** Illinois TRS: A member age 55 with at least 20 but less than 35 years of service credit may use the Early Retirement Option (expires 6/30/2005) to avoid a discount for early retirement if retirement occurs within six months of the last day of service requiring contributions, and if the member and employer both make a one-time contribution to the system. Member and employer contributions are waived for members with 34 years of service.
- 35** Illinois TRS: Service as a teacher, including in another state, for a period not to exceed the lesser of 2/5 of the total creditable service or 10 years.
- 36** Illinois IMRF: Annual actuarial discount for early retirement is the lesser of 3% for each year the member is under age 60 or 3% for each year of service less than 35 years.
- 37** Illinois IMRF: Reciprocal credit for service in other Illinois public pension systems; eligible members may purchase up to 5 years of credit under early retirement incentive plan offered at local employers' option; eligible members may purchase up to 5 years of credit for military service.
- 38** Illinois SURS: Can purchase up to 10 years of other public employment but not more than 2/3 of direct SURS service credit.
- 39** IL-Chicago PSTPRF: Up to 10 years for public school teaching in another state; up to 36 months for employer approved leaves of absence.
- 40** Indiana TRF: Early retirement annual actuarial discount is 1.2% for ages 60-65 and 5% for ages below 60.
- 41** Indiana TRF: If a member began service before 7/1/81, he/she may receive up to 8 years of credit at the rate of 1 year of out-of-state service for every 4 years of Indiana service at no cost to the member, provided the member has 10 years of creditable Indiana teaching service; for members who join thereafter, no limit applies to the number of years of service which may be purchased, but the member must have at least 10 years of in-state service before he/she may claim any out of state service credits. Members who have earned at least 10 years of service may purchase one year of service ("air time") for every five years of TRF membership service. Also, service credit may be purchased for private school employment.
- 42** Indiana PERF: Early retirement actuarial discount is 11% at age 59 and 5% for each year under 59.
- 43** Iowa PERS: Four or more years of service are required to qualify for the "high-three" formula benefit. A vested member with less than 4 years of service receives benefits computed on a money purchase basis.
- 44** Iowa PERS: Service including out-of-state service that is comparable to the employee's employment in Iowa. No limitation exists on the amount of such service which may be purchased. Effective 7/1/2000, members can also purchase time for service in public schools in Canada. Effective 7/1/2002, members can purchase non-qualified (non-governmental or "air time") time up to a maximum of 5 years.
- 45** Kansas PERS: Early retirement annual actuarial discount is 2.4% for ages 60-62 and 7.2% for ages 55-60.
- 46** Kansas PERS: Out-of-state teaching service credit may be purchased and the number of years of purchase is not limited.
- 47** Kentucky TRS: Up to 10 years of out-of-state service as certified or licensed teacher as long as member is in active status with KTRS for at least 1 full scholastic year following the most recent period of out-of-state service, but not in excess of 1 year of credit for each 2 years of Kentucky service in a covered position.
- 48** Kentucky CERS: Early retirement annual actuarial discount is 5% for each of the first five years of age or service required for normal retirement and 4% for each of the next five years of age or service required for normal retirement.
- 49** Kentucky KERS: Early retirement annual actuarial discount is 5% for each of the first five years of age or service required for normal retirement and 4% for each of the next five years of age or service required for normal retirement.

- 50** Louisiana TRSL: Data in table refer to Teachers' Regular Plan. Under Teachers' Regular Plan, retirement may be taken at age 60 with 5 years of service or any age with 20 years of service, but the benefit formula percentage is reduced to 2%. Under Teachers' Plan A (which resulted from the merger of the Louisiana School Lunch Employees' Retirement System Plan A into the system on 7/1/83), normal retirement with full benefits (in this case, a 3% formula) can be taken at any age with 30 years of service, age 55 with 25 years of service, or age 60 with 5 years of service. Under Teachers' Plan B (also merged on 7/1/83) for members who are covered by Social Security, normal retirement at full benefit (in this case, a 2% formula) is available at age 60 with 5 years of service and at age 55 with 30 years of service. Regular plan members joining after 7/1/99 have a 2.5% benefit formula with 25 years of service at age 55, with 30 years at any age and with 5 years at age 60.
- 51** Louisiana TSRL: Any number of years of credit may be purchased for out-of-state public school teaching service or in-state private school teaching service.
- 52** Maine MSRS: Data in table apply to participants who had less than 10 years of service on 7/1/93. For other participants, normal retirement is available at any age with 25 years of service or at age 60 and either 10 years of service or 1 year of service immediately before retirement. The early retirement annual discount for employees who had 10 years of service as of 7/1/93 is 2.25%.
- 53** Maine MSRS: Credit for up to 10 years of out-of-state service may be purchased but the member must have creditable service in Maine of at least 20 years in the aggregate.
- 54** Maryland TRS: Credit for up to 10 years of private, parochial, or out-of-state public school service may be purchased.
- 55** Maryland TPS: Credit for up to 10 years of private, parochial or out-of-state public school service may be purchased.
- 56** Massachusetts TRS: See also Table 5, footnote (23) for summary of the alternate retirement program, "Retirement Plus".
- 57** Massachusetts TRS: A reduction of 0.1% in the formula multiplier is applied for each year of age under the maximum age for the members' group. For example, the multiplier at the maximum age of 65 is 2.5%, but is 2.0% at age 60 and 1.5% at age 55.
- 58** Massachusetts TRS: The purchase of out-of-state public school service cannot exceed 10 years and the total purchased cannot exceed the amount of Massachusetts creditable teaching service. Up to five years of creditable service can be purchased for teaching in Puerto Rico and U.S. Department of Defense Overseas Dependent Schools. Up to three years of creditable service can be purchased for Peace Corps service.
- 59** Massachusetts SERS: See also Table 5, footnote (24) for summary of optional retirement plan available to higher education members.
- 60** Massachusetts SERS: A reduction of 0.1% in the formula multiplier is applied for each year of age under the maximum age for the members' group. For example, the multiplier at the maximum age of 65 is 2.5%, but is 2.0% at age 60 and 1.5% at age 55.
- 61** Michigan MPSERS: Data in table refer to Membership Investment Plan; a Basic Plan member is eligible for normal retirement at age 55 with 30 years of credited service or at age 60 with 10 years of credited service.
- 62** Michigan MPSERS: The member may generally purchase up to 15 years of credit for out-of state teaching service on a matching basis, at a cost of 5% of highest previous year's salary.
- 63** Michigan MSERS: New employees hired on or after 3/31/97 do not participate in the defined benefit plan. Instead they participate in a defined contribution plan. The defined contribution plan also allowed state employees hired prior to 3/31/97 to withdraw from the MSERS defined benefit plan and irrevocably enroll in the new plan.
- 64** Michigan MSERS: 5 years for certain legislative and executive branch employees exempt from the classified service. For state employees participating in the defined contribution plan, employees vest in 50% of employer's contributions after 2 years of service, 75% of employer's contributions after 3 years of service, and 100% of employer's contribution after 4 years of service.

- 65** Michigan MERS: 60/8 or 60/6 where municipality elects reduced vesting provisions.
- 66** Michigan MERS: Early retirement occurs if the vested member meets the credited service requirements, but not the age requirement; retirement payment is reduced amount the member is younger than the minimum retirement age.
- 67** Michigan MERS: Credited service required for vesting may be reduced to 6 or 8 years, provided the municipality elects such differences.
- 68** Minnesota TRA: Normal retirement age of 65 for members first hired before 7/1/89 or, if hired after 7/1/89 and born before 1938.) Members first hired before 7/1/89 are also eligible for an actuarially unreduced pension benefit under the Rule of 90. New TRA members after 6/30/89 born between 1938 and 1943 are tied to Social Security for normal retirement age of 65 years, 2 months to 65 years, 10 months. Those members born between 1943 and 1954 have age 66 for full retirement. (Beginning in the year 2003, the retirement age at which a person becomes eligible for full Social Security retirement benefits gradually increases from age 65 for persons born after 1938 until it reaches age 67 in the year 2027).
- 69** Minnesota TRA: Vested members were permitted to purchase up to ten years of eligible credit for prior out-of-state teaching service, Peace Corps or VISTA service, or private/parochial school service, but this option to purchase service credit expired on 5/16/2003.
- 70** Minnesota PERF: Normal Social Security retirement age (currently 65, but starting in the year 2003, Social Security will gradually increase the retirement age for full Social Security retirement benefits until it reaches age 67 in the year 2027). New PERF members after 6/30/89 born between 1938 and 1943 are tied to Social Security for normal retirement age of 65 years, 2 months to 65 years, 10 months. Those members born after 1943 have age 66 for full retirement.
- 71** Minnesota SERF: Normal Social Security retirement age (currently 65, but starting in the year 2003, Social Security will gradually increase the retirement age for full Social Security retirement benefits until it reaches age 67 in the year 2027). New SERF members after 6/30/89 born between 1938 and 1943 are tied to Social Security for normal retirement age of 65 years, 2 months to 65 years, 10 months. Those members born after 1943 have age 66 for full retirement.
- 72** MN-Minneapolis MTRFA: Vested members were permitted to purchase up to 10 years of eligible credit for prior out-of-state teaching service, Peace Corps or VISTA service, or private/parochial school service, but this option to purchase service credit expired on 5/16/2003.
- 73** MN-St. Paul SPTRFA: Data in table are for Tier II of coordinated plan.
- 74** MN-St. Paul SPTRFA: Vested members were permitted to purchase up to 10 years of eligible credit for prior out-of-state teaching service, Peace Corps or VISTA service, or private/parochial school service, but this option to purchase service credit expired on 5/16/2003.
- 75** Mississippi PERS: Members with at least 4 years of membership service credit may purchase up to 5 years of out-of-state service in public employment.
- 76** Missouri PSRS: "25 and out" window available through 7/2008 allows eligible members to retire using a formula factor of less than 2.5%; the modified factors are as follows: 25 – 25.9 yrs = 2.20%, 26 – 26.9 yrs = 2.25%, 27 – 27.9 yrs = 2.30%, 28 – 28.9 yrs = 2.35%, and 29 – 29.9 yrs = 2.40%.
- 77** Missouri PSRS: Credit may be purchased for up to 10 years of out-of-state teaching service; credit may be purchased for up to 3 years of Missouri private school experience.
- 78** MO-St. Louis PSRS: If vested, credit may be purchased at the rate of one year for each year of public school service; credit may also be purchased for up to 3 years of private school service.
- 79** Missouri MOSERS: Data in table refer to new plan (MSEP 2000). Under closed plan a member is eligible for normal retirement if age 65 and active with 5 years of service, or age 60 with 15 years of service, or any combination of years and service totaling 80; under closed plan early retirement eligibility is age 55 with ten years of service and the maximum early retirement reduction is 60% (ten years x 6%/year).

- 80** Montana TRS: The reduction is one-half of 1 percent for each of the first 60 months that the early retirement date precedes age 60 or 25 years of service, and three-tenths of 1% for each month in excess of the first 60 months that early retirement precedes age 60 or 25 years of service.
- 81** Montana TRS: Credit may be purchased for up to 5 years of out-of-state public employment, as long as the member has 5 years of active Montana membership, with at least 1 full year of Montana service following his/her out-of-state teaching service.
- 82** Montana PERS: The reduction is one-half of one percent for each of the first 60 months that the early retirement date precedes age 60 or 25 years of service, and three-tenths of 1% for each month in excess of the first 60 months that early retirement precedes age 60 or 25 years of service.
- 83** Montana PERS: Credit may be purchased for up to 5 years of out-of-state public employment, as long as the member has 5 years of active Montana membership at the time of the purchase.
- 84** Nebraska SRS: May purchase service credit for out-of-state teaching experience for amount of service equal to service in Nebraska, up to a maximum of 10 years.
- 85** Nebraska SERS: Qualification for state matching is three years of service (two years of plan participation) for defined contribution plan; three year vesting for new cash balance plan.
- 86** NE-Omaha OSERS: If an employee begins receiving an annuity before age 62, such an annuity will be reduced by 0.25% for each month prior to age 62, provided that if 84 points have been achieved, the reduction is limited to 3%; if 83 points have been achieved, the reduction is limited to 6%; and if 82 points have been achieved, the reduction is limited to 9%.
- 87** NE-Omaha OSERS: 5 years of credit to Omaha service allows election of deferred vested annuity; first pay will be as an unreduced amount at age 65. With 10 or more years of total creditable service (including at least 5 years of creditable Omaha service), the deferred vested service annuity could commence unreduced at age 62.
- 88** NE-Omaha OSERS: May purchase up to 10 years credit for service in another public school system; may purchase up to 5 years credit for nonqualified service ("air time").
- 89** Nevada PERS: Credit for up to 5 years of service may be purchased by vested members.
- 90** New Hampshire NHRS (Group 1): Rule of 70 available only if member has at least 20 years of service.
- 91** New Hampshire NHRS (Group 1): Prior to age 60, 6.67% annual reduction for less than 20 years of service; 5.0% annual reduction for 20-25 years of service; 4.0% annual reduction for 25-30 years of service; 3.0% annual reduction for 30-35 years of service; 1.5% annual reduction for 35+ years of service.
- 92** New Hampshire NHRS (Group 1): Teachers who became members of the system after 6/30/90 may purchase service credit for out-of-state teaching up to the amount of that out-of-state service.
- 93** New Jersey TPAF: Discount is 0.25% per month under age 55.
- 94** New Jersey TPAF: Credit may be purchased for up to 10 years of out-of-state teaching service.
- 95** New Jersey PERS: Discount is 0.25% per month under age 55.
- 96** New Jersey PERS: Credit may be purchased for up to 10 years of out-of-state public service.
- 97** New Mexico ERB: If retiring under R-75 and age less than 60, the reduction is 2.4% per year for ages 55-59 and 7.2% per year for age under 55.
- 98** New Mexico ERB: Can purchase up to 5 years credit for out-of-state public school service, U.S. Military Dependents' school service, Federal educational service in New Mexico, or New Mexico private school experience.

- 99** New York TRS: Purchase of service credit for out-of-state service only for Tier 1 members (i.e., those joining prior to 7/1/73). Members may obtain service credit for teaching in New York City public schools at a time when they were STRS members and were prohibited from joining a NYC retirement system. Any such service prior to July 1, 1990, would be creditable. To obtain credit, members need at least two years of STRS service. In addition, Tier 3 and 4 members would have to pay 3% member contributions for the service plus 5% annual interest from the date of service until payment is made.
- 100** New York ERS: Early retirement annual discount of 6% per year for the two year less than age 62, then 3% per year for years less than age 60; applies to Tiers 2,3 and 4.
- 101** NY-New York City TRS: For a Tier III member who retires before age 62 with less than 30 years of service, the benefit reduction is 6.6667% for each of the first two years by which early retirement precedes age 62 and 3.3333% for each additional year by which early retirement precedes age 62. For a Tier IV member who retires before age 62 with less than 30 years of service, the benefit reduction is 6.00% for each of the first two years by which early retirement precedes age 62 and 3.00% for each additional year by which early retirement precedes age 62.
- 102** North Carolina TSERS: Reduction factor shown in table is for retirement between ages 60 and 65; there is a 5% reduction factor for years prior to age 60.
- 103** North Carolina LGERS: Reduction factor shown in table is for retirement between ages 60 and 65; there is a 5% reduction factor for years prior to age 60.
- 104** North Dakota TFFR: Members may purchase service credit for out-of-state public, private and parochial school teaching and for North Dakota private and parochial school teaching. In addition, members with at least five years of credited service can purchase up to five years of nonqualified service time or “air time”. In addition, legislation effective in 2003 allows a participating employer to purchase up to three years of service credit on behalf of a member; the member must not be given the option between an employer service purchase and an equivalent amount in cash; to be eligible the member's age plus service credit must be equal to or greater than 77; or the member must be at least age 55 with three years of service credit.
- 105** Ohio STRS: There is a 3% per year reduction for ages 60-64 and a 5% year reduction for ages below 60 to a maximum reduction of 25%, or a 5% year reduction for 25–29 years of service credit. The total maximum reduction cannot exceed 25%.
- 106** Ohio STRS: Service eligible for purchase includes teaching in a public school in another state, teaching in a private school in the U.S., and teaching in a school operated by the U.S. government.
- 107** Ohio PERS: There is a 3% per year reduction for ages 60-64 and a 5% year reduction for ages below 60 to a maximum reduction of 25%, or a 5% year reduction for 25–29 years of service credit. The total maximum reduction cannot exceed 25%.
- 108** Ohio SERS: There is a 3% per year reduction for ages 60-64 and a 5% year reduction for ages below 60 to a maximum reduction of 25%, or a 5% year reduction for 25–29 years of service credit. The total maximum reduction cannot exceed 25%.
- 109** Ohio SERS: A member may purchase credit for service rendered in a school or government position outside the state of Ohio. The service cannot be greater than the member's actual Ohio contributing credit.
- 110** Oklahoma TRS: Rule of 80 available to members who joined TRS before 6/30/92.
- 111** Oklahoma TRS: Credit may be purchased for up to 5 years of out-of-state teaching service.
- 112** Oklahoma PERS: Rule of 80 available to members who joined PERS before 6/30/92.
- 113** Oregon PERS: Data in table apply to general service employees. Normal retirement increased from age 58 to age 60 for general service employees who became members after 1/1/96.
- 114** Oregon PERS: Teachers or school administrators may purchase up to 4 years of out-of-state public school teaching or administrative service.

- 115** Pennsylvania PSERS: Credit may be purchased for up to the lesser of the number of years of school service earned in PSERS or 12 years of out-of state public school service.
- 116** Pennsylvania SERS: A maximum of 5 years of qualifying non-intervening military service and a maximum of 10 years of qualifying out-of-state educational service may be purchased by qualifying members. The purchase of non-state service cannot exceed the number of years of State service credited to that member.
- 117** Pennsylvania PMRS: 600+ plans vary widely in benefits; as an alternative to a unique municipal design, municipal employees may be offered the basic benefit shown in the table under Article II of the Pennsylvania Municipal Retirement Plan.
- 118** Pennsylvania PMRS: Plans vary; plans with lower vesting requirements available.
- 119** Rhode Island ERSRI: Credit may be purchased by vested members for up to 5 years of out-of-state teaching service or private school teaching time.
- 120** South Carolina SCRS: Early retirement is at age 60 with 5% reduction for each year under age 65 or at age 55 with 25 years of service, reduced 4% for each year of service under 28.
- 121** South Carolina SCRS: Service credit may be purchased for any period of paid classroom teaching in a public, private or sectarian school or any period of paid public service as an employee of the government of the United States or a state or political subdivision of the United States. Active contributing members with 5 or more years of earned service may purchase up to 5 years of credit for nonqualified service ("air time").
- 122** South Dakota SDRS: Public service for which the member is not entitled to retirement benefits from another retirement system may be purchased without limitation on the number of such years purchased.
- 123** Tennessee CRS: If 55 and vested, early retirement reduction factor is 4% per year; if a member is less than 55 but has 25 to 29 years, 11 months of service, there are two reductions on the benefit: (1) the reduction based on service credit and (2) a reduction based on the actuarial factor for the member's age on the date of retirement.
- 124** Tennessee CRS: Credit may be purchased for out-of-state service as a public school teacher up to the amount of years of service earned in Tennessee.
- 125** Texas TRS: Credit may be purchased by vested members for up to 15 years of out-of-state public school service or, if less, up to the amount of Texas service earned. If member has at least 7 years of active service, credit may be purchased for up to 3 years of nonqualified service ("air time").
- 126** Texas ERS: Member with 10 years of service credit may purchase up to 5 additional years of credit.
- 127** Utah SRS: Any age with 25 years of service with full actuarial reduction before age 60.
- 128** Utah SRS: There is a 3% reduction for every year between age 60 and age 65 and a 7% reduction for every year under age 60.
- 129** Utah SRS: Credit may be purchased for any out-of-state educational or public employment.
- 130** Vermont STRS: Credit may be purchased for out-of-state teaching service, military service, Peace Corps or VISTA service, service as a municipal employee in Vermont, or teaching service in a private school in Vermont. Non-military credit purchases are limited to 10 years. Total military service purchased cannot exceed five years. Up to 5 years may be purchased after 25 years of Vermont service without having actually rendered the service (termed "air time").
- 131** Vermont MERS: Only applies to service earned under Group A or B.
- 132** Vermont MERS: Group D membership restricted to police officers, firefighters and emergency medical technicians.
- 133** Vermont VSRS: Data in table apply to Group F — all general employees and probate judges hired after 7/1/87.

- 134** Virginia VRS: For 55/5 early retirement, 6% annual reduction for first 5 years and 4.8% annual reduction for additional years; for 50/10 early retirement, the benefit amount is calculated based upon age 55 retirement and a 6% annual reduction for the first 5 years and 4.8% annual reduction for additional years, then further reduced by 7.2% per year for age less than 55.
- 135** Virginia VRS: Up to 4 years of service credit may be purchased by members for out-of-state civilian/public service includes out-of-state teaching, Peace Corps or other Federal government service for which the member is not receiving a retirement benefit.
- 136** Washington TRS (Plan 1): Credit may be purchased for up to 4 years of out-of-state public employment.
- 137** Washington TRS (Plan 3): Service credit earned in a public school teachers' retirement system in another state may be used to meet the service credit requirements for early retirement, but out-of-state service is not used in the calculation of the TRS benefit amount, only the retirement eligibility date.
- 138** West Virginia TRS: Credit can be purchased for out-of-state public school teaching for up to 10 years of service at a rate of 1 year credit for every 2 years of West Virginia service earned.
- 139** West Virginia TDC: Member 33.3% vested after 6 years, 66.6% vested after 9 years, and 100% vested after 12 years.
- 140** Wisconsin WRS: May purchase service credit for up to the lesser of 10 years of out-of-state public employment or the number of years of participation in WRS.
- 141** Wyoming WRS: May purchase service credit for up to five years of out-of-state public employment.

TABLE 3.
POSTRETIREMENT CONSIDERATION

| State/Fund | COLA | State Taxation of Benefits |
|-------------------|---------------------------------------------------------------------------|------------------------------|
| Alabama/TRS | Ad Hoc | Exempt |
| Alabama/ERS | Ad Hoc | Exempt |
| Alaska/TRS | If 65, smaller of 9% or 3/4 CPI; if 60, smaller of 6% or 1/2 CPI 1 | No state income tax |
| Alaska/PERS | If 65, smaller of 9% or 3/4 CPI; if 60, smaller of 6% or 1/2 CPI 2 | No state income tax |
| Arizona/ASRS | Investment surplus capped at 4% 3 | Up to \$2,500 excludable |
| Arkansas/ATRS | Annual 3%, simple | Exempt to \$6,000 |
| Arkansas/PERS | Annual 3%, compounded | Exempt to \$6,000 |
| California/STRS | Annual 2% benefit improvement factor plus PPP supplement 4 | Taxable |
| California/PERS | Up to 2% compounded annually plus PPPA 5 | Taxable |
| California/UCRS | 100 % CPI up to 2%; 75% of CPI over 4%; max of 6% | Taxable |
| Colorado/PERA | Annual 3.5%, compounded | ----- 6 |
| CO-Denver/DPSRS | Annual retirement adjustment allowance of 3.25%, compounded | ----- 7 |
| Connecticut/TRS | CPI up to 5% or CPI up to 6% 8 | Taxable |
| Connecticut/SERS | CPI with 2.5% minimum, 6% maximum 9 | Taxable |
| Connecticut/CMERS | CPI with 2.5% minimum, 6% maximum 10 | Taxable |
| Delaware/SEPP | Ad Hoc | Exempt to \$12,500 11 |
| Florida/FRS | Annual 3% | No state income tax |
| Georgia/TRS | Up to 1.5% every 6 mos. based on change in CPI, compounded | Up to \$15,000 excludable |
| Georgia/ERS | CPI up to 1.5% every 6 mos., simple | Up to \$15,000 excludable |
| Georgia/PSERS | Ad Hoc | Up to \$15,000 excludable |
| Hawaii/ERS | Annual 2.5%, simple 12 | Exempt |
| Idaho/PERS | CPI up to 1% mandatory or CPI up to 6% discretionary 13 | Taxable |
| Illinois/TRS | Annual 3%, compounded | Exempt |
| Illinois/IMRF | Annual 3%, simple | Exempt |
| Illinois/SERS | Annual 3%, compounded | Exempt |
| Illinois/SURS | Annual 3%, compounded | Exempt |
| IL-Chicago/PSTPRF | Annual 3%, compounded | Exempt |
| Indiana/TRF | Ad Hoc 14 | Taxable 15 |
| Indiana/PERF | Ad Hoc | Taxable 16 |
| Iowa/PERS | 100% of CPI up to 3% 17 | Exempt to \$6,000 18 |
| Kansas/PERS | Ad Hoc | Exempt |

TABLE 3.
POSTRETIREMENT CONSIDERATION (Continued)

| State/Fund | COLA | State Taxation of Benefits |
|-------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------|
| Kentucky/TRS | Automatic 1.5% plus ad hoc 19 | Exempt to \$39,400 20 |
| Kentucky/CERS | CPI up to 5% | Exempt to \$39,400 21 |
| Kentucky/KERS | CPI up to 5% | Exempt to \$39,400 22 |
| Louisiana/TRSL | CPI up to 3% 23 | Exempt |
| Louisiana/LASERS | CPI up to 3% 24 | Exempt |
| Maine/MSRS | CPI up to 4% | Exempt to \$6,000 |
| Maryland/TRS | Unlimited CPI for 7% employee contribution; CPI up to 5% for 5% employee contribution option | Partial exemption 25 |
| Maryland/TPS | CPI up to 3%, compounded | Partial exemption 25 |
| Maryland/ERS | Unlimited CPI for 7% employee contribution; CPI up to 5% for 5% employee contribution option | Partial exemption 25 |
| Maryland/EPS | CPI up to 3%, compounded | Partial exemption 25 |
| Massachusetts/TRS | Ad Hoc 26 | Exempt |
| Massachusetts/SERS | Ad Hoc 27 | Exempt |
| Michigan/MPERS | Annual 3% 28 | Exempt |
| Michigan/MSERS | Annual 3% up to a maximum of \$25/month 29 | Exempt |
| Michigan/MERS | Varies by municipality choice 30 | Exempt |
| Minnesota/TRA | CPI up to 2.5% + investment surplus 31 | Taxable |
| Minnesota/PERF | CPI up to 2.5% + investment surplus 32 | Taxable |
| Minnesota/SERF | CPI up to 2.5% + investment surplus 33 | Taxable |
| MN-Minneapolis/MTRFA | Annual 2% + investment surplus 34 | Taxable |
| MN-St. Paul/SPTRFA | Annual 2% + investment surplus 35 | Taxable |
| Mississippi/PERS | ----- 36 | Exempt |
| Missouri/PSRS | CPI up to 5%; lifetime COLAs limited to 80% of original benefit | Exempt to \$6,000 |
| Missouri/NTRS | CPI up to 5%; lifetime COLAs limited to 80% of original benefit | Exempt to \$6,000 |
| MO-St. Louis/PSRS of St Louis | Ad hoc 37 | Exempt to \$6,000 |
| Missouri/MOSERS | 80% of CPI up to 5% | Exempt to \$6,000 |
| Montana/TRS | Guaranteed annual adjustment up to 3.0% | Exempt to \$3,600 |
| Montana/PERS | Guaranteed annual adjustment up to 3.0% | Exempt to \$3,600 |
| Nebraska/SRS | CPI up to 2.5% 38 | Taxable |
| Nebraska/SERS | None 39 | Taxable |
| NE-Omaha/OSERS | Automatic 1.5% plus ad hoc 40 | Taxable |
| Nevada/PERS | CPI varying from 0 to 5% 41 | No state income tax |

TABLE 3.
POSTRETIREMENT CONSIDERATION (Continued)

| State/Fund | COLA | State Taxation of Benefits |
|----------------------------------|---------------------------------------------------------------------------|------------------------------------------------|
| New Hampshire/ NHRS (Group 1) | Ad Hoc 42 | Exempt |
| New Jersey/TPAF | 60% of change in CPI | Exempt to \$15,000 single, \$20,000 married |
| New Jersey/PERS | 60% of change in CPI | Exempt to \$15,000 single, \$20,000 married |
| New Mexico/ERB | 50% of change in CPI up to 4% 43 | Taxable |
| New Mexico/PERA | Annual 3% 44 | Taxable |
| New York/TRS | 50% of change in CPI up to 3%, but at least 1% minimum 45 | Exempt |
| New York/ERS | 50% of change in CPI up to 3%, but at least 1% minimum 46 | Exempt |
| NY-New York City/TRS | 50% of change in CPI up to 3%, but at least 1% minimum 47 | Exempt |
| North Carolina/TSERS | Ad Hoc 48 | Exempt to \$4,000 49 |
| North Carolina/LGERS | Ad Hoc 50 | Exempt to \$4,000 51 |
| North Dakota/TFFR | Ad Hoc | Taxable |
| North Dakota/PERS | Ad Hoc | Taxable |
| Ohio/STRS | Annual 3%, simple 52 | Tax credit 53 |
| Ohio/PERS | Annual 3%, simple | Tax credit 54 |
| Ohio/SERS | Annual 3%, simple | Tax credit 55 |
| Oklahoma/TRS | Ad Hoc 56 | Exempt to \$5,500 |
| Oklahoma/PERS | Ad Hoc 57 | Exempt to \$5,500 |
| Oregon/PERS | CPI up to 2% plus ad hoc | Tax credit 58 |
| Pennsylvania/PSERS | Ad Hoc 59 | Exempt |
| Pennsylvania/SERS | Ad Hoc 60 | Exempt |
| Pennsylvania/PMRS | Optional 61 | Exempt |
| Rhode Island/ERSRI | Annual 3%, compounded 62 | Taxable |
| Rhode Island/MERS | Annual 3%, simple 63 | Taxable |
| South Carolina/SCRS | CPI up to 4%, subject to Board approval | ----- 64 |
| South Dakota/SDRS | Annual 3.1 %, compounded | No state income tax |
| Tennessee/CRS | CPI up to 3%, compounded | Exempt |
| Texas/TRS | Ad Hoc | No state income tax |

TABLE 3.
POSTRETIREMENT CONSIDERATION (Continued)

| State/Fund | COLA | State Taxation of Benefits |
|-----------------------------------|----------------------------------------------------------------------|---------------------------------------|
| Texas/ERS | Ad Hoc | No state income tax |
| Utah/SRS ⁶⁵ | CPI up to 4%, simple | Taxable ⁶⁶ |
| Vermont/STRS | 1/2 CPI up to 5% ⁶⁷ | Taxable |
| Vermont/MERS | 1/2 CPI up to 2% or 1/2 CPI to 3% ⁶⁸ | Taxable |
| Vermont/VSRS | 1/2 CPI up to 5% ⁶⁹ | Taxable |
| Virginia/VRS | CPI up to 3% + 1/2 CPI between 3% and 7% up to 5% max, compounded | Taxable |
| Washington/ TRS (Plans 2 & 3) | CPI up to 3% | No state income tax |
| Washington SERS (Plans 2 & 3) | CPI up to 3% | No state income tax |
| Washington/ PERS (Plans 2 & 3) | CPI up to 3% | No state income tax |
| West Virginia/TRS | Ad Hoc | Exempt to \$2,000 |
| West Virginia/TDC | None | Exempt to \$2,000 |
| West Virginia/PERS | Ad Hoc | Exempt to \$2,000 |
| Wisconsin/WRS | Investment surplus increases | Taxable ⁷⁰ |
| Wyoming/WRS | CPI (Wyoming) up to 3.0% | No state income tax |

Table 3.
Footnotes

- 1** Alaska TRS: Data in table is for automatic Post Retirement Pension Adjustment (PRPA); in addition, eligible benefit recipients who reside in Alaska receive the Alaska Cost of Living Allowance, which is equal to 10% of their base benefits.
- 2** Alaska PERS: Data in table is for automatic Post Retirement Pension Adjustment (PRPA); in addition, eligible benefit recipients who reside in Alaska receive the Alaska Cost of Living Allowance, which is equal to 10% of their base benefits.
- 3** Arizona ASRS: Permanent Benefit Increase (PBI) paid from reserve of "excess investment earnings"; if no excess earnings, no PBI paid; excess earnings defined as rate of return greater than 8%; PBI is equal to lesser of excess earnings or change in CPI, capped at 4%. Beginning July 1, 2003 the PBI was \$35.45 per year of service (e.g., a retiree with ten years of service would receive \$354.50 per year or \$29.54/month). Additional "enhanced PBI" paid from interest earnings of PBI reserve; base amount set by formula and paid to persons retired for five years; amount increases by the base amount every 5 years, with the maximum amount being paid after a member has been retired for 30 years. At July 1, 2003, the enhanced PBI for an employee retired 5 to 9.99 years was \$8.74/month, for an employee retired 10 to 14.99 years was \$17.48/month, for an employee retired 15 to 19.99 years was \$26.22/month, for an employee retired 20 to 24.99 years was \$34.96/month, for an employee retired 25 to 29.99 years was \$43.70/month, and for an employee retired 30 or more years was \$52.44/month.
- 4** California STRS: "Benefit improvement factor" is 2% simple increase each September, plus Purchasing Power Protection (PPP) supplement which restores benefit recipient purchasing power up to 80% of initial allowance, based on availability of funds.
- 5** California PERS: Data shown in table for state Tier 1 members and school members; also up to 5% maximum as contract option for retired members of local agencies; a fixed 3% compounded annually for state Tier 2 members; in addition to regular annual COLA, member may receive a Purchasing Power Protection Allowance (PPPA) which is provided to retirees when the purchasing power of their benefits falls below 80% of the initial allowance.
- 6** Colorado PERA: Up to \$20,000 excludable if age 55–64; up to \$24,000 excludable if age 65 or older.
- 7** CO-Denver DPSRS: Up to \$20,000 excludable if age 55–64; up to \$24,000 excludable if age 65 or older.
- 8** Connecticut TRS: CPI with 3% minimum and 5% maximum for retirees prior to 9/1/92 (the 7/2003 adjustment was 3.0%). For retirees on or after 9/1/92, the adjustment is based on the COLA granted to Social Security recipients to a maximum of 6%, depending on adequacy of "excess earnings account" (the 7/2003 adjustment was 1.2%).
- 9** Connecticut SERS: Employees who retire 7/97 through 6/99 have an irrevocable choice of an annual 3% COLA or a "revised cost of living formula." Employees who retire after 7/1/99 receive the "revised cost of living formula." The "revised cost of living formula" provides for a minimum COLA of 2.5% and a maximum COLA of 6%, with the actual amount within that range calculated based on 60% of the annual increase in the CPI-W up to 6% and 75% of the annual increase in the CPI-W over 6%.
- 10** Connecticut CMERS: For municipal members retiring on and after January 1, 2002, the plan provides for a COLA ranging from a minimum of 2.5 % to a maximum of 6 % based on the following formula: 60 % of the annual increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) up to 6 % plus 75 % of the annual increase in the CPI-W above 6 %, payable on the first July first following the retirement date and on each subsequent July first. For retirees who are age 65 or older prior to January 1, 2002 , the COLA is at least 3 % up to a maximum of 5 %, dependent on the fund's investment performance. For those members who retire prior to January 1, 2002 and are not 65 years of age, the plan provides for a temporary COLA in the amount of 2.5 % payable effective July 1, 2002; this COLA will be payable on each subsequent July first until the July first following the members' 65th birthday at which time the COLA will revert to the 3 % - 5% percent formula, which is tied to investment performance.
- 11** Delaware SEPP: Exempt to \$2,000 below age 60.

- 12** Hawaii ERS: For fiscal year 2002-2003, retirees aged 70 years or older with 20 or more years of service as of July 30, 2002 were granted one-time, lump-sum pension bonus of \$200.
- 13** Idaho PERS: 1.0% COLA authorized and implemented 3/1/03. In addition to COLA, Idaho PERS provides for "gain-sharing". At the close of each fiscal year, the board determines whether the fund has experienced extraordinary gains. Extraordinary gains are defined as the excess, if any, of plan assets over the plan's accrued actuarially determined liabilities plus a sum necessary to absorb one standard deviation market event without increasing contribution rates. Extraordinary gains can be allocated to retirees, to active members, and to employers in such proportion as determined by the board. Retirees receive their allocation in the form of a one-time payment ("13th check") made in addition to their regular monthly benefit payments. In 2003, no gainsharing distribution was made.
- 14** Indiana TRF: COLA adjustment approved by legislature in 2003; effective with February 2004 benefit check : 1% COLA for those retiring after 7/1/96 and before 7/2/01; 2% for those retiring after 7/1/78 and before 7/2/96; and 3% for those retiring before 7/2/78.
- 15** Indiana TRF: \$5,200 deduction for disability pensions only.
- 16** Indiana PERS: \$5,200 deduction for disability pensions only.
- 17** Iowa PERS: COLA in table applies to members retiring prior to 7/1/90; for those retiring after 7/1/90 "favorable experience dividend" paid if sufficient funds are available, also capped at 3%. The "favorable experience dividend" receives funding in years when the trust fund's total experience is positive with the intent of amassing a reserve sufficient so coverage can continue for those years when overall actuarial experience may not be favorable. The target "favorable experience dividend" is also 100% of CPI up to 3%. On 1/31/03 IPERS declared a 1.07% "favorable experience dividend" which is paid by multiplying the annual pension received by the retiree by 1.07% and by the number of full years in retirement.
- 18** Iowa PERS: Or \$12,000 for married persons.
- 19** Kentucky TRS: Retirees who were retired for one year received a total COLA of 3.0% for fiscal year 2003-2004 (1.5% automatic and 1.5% ad hoc).
- 20** Kentucky TRS: Effective 12/97, only that portion of the annuitant's benefit that is derived from service earned after 12/97 is subject to state taxation, but with an annual exclusion amount set at \$39,400 for 2003 and adjusted annually for inflation.
- 21** Kentucky CERS: Effective 12/97, only that portion of the annuitant's benefit that is derived from service earned after 12/97 is subject to state taxation, but with an annual exclusion amount set at \$39,400 for 2003 and adjusted annually for inflation.
- 22** Kentucky KERS: Effective 12/97, only that portion of the annuitant's benefit that is derived from service earned after 12/97 is subject to state taxation, but with an annual exclusion amount set at \$39,400 for 2003 and adjusted annually for inflation.
- 23** Louisiana TSRL: COLA based on change in CPI up to 3% in years when the actuarial return on investment equals 8.25%; if actuarial return on investment is less than 8.25%, then COLA based on change in CPI up to 2%. In either case, application of COLA is limited to first \$70,000 of annual benefit. No COLA granted in 2003.
- 24** Louisiana LASERS: COLA based on change in CPI up to 3% in years when the actuarial return on investment equals 8.25%; if actuarial return on investment is less than 8.25%, then COLA based on change in CPI up to 2%. In either case, application of COLA is limited to first \$70,000 of annual benefit.
- 25** Maryland TRS, TPS, ERS, EPS: Maximum exclusion is \$18,500 less amount of Social Security benefits received.
- 26** Massachusetts TRS: The first \$12,000 of a retiree's allowance is subject to a cost of living adjustment equal to 3%, which must be authorized annually by the legislature. Cost-of-living increases are compounded.
- 27** Massachusetts SERS: The first \$12,000 of a retiree's allowance is subject to a cost of living adjustment equal to 3%, which must be authorized annually by the legislature. Cost-of-living increases are compounded.

- 28** Michigan MPSERS: Data in table refer to Member Investment Plan; Basic Plan recipients receive a supplemental payment in those years when investment earnings exceed actuarial assumptions.
- 29** Michigan MSERS: Beginning in 1983, eligible benefit recipients also share annually in any distribution of investment income earned in excess of 8%, but this supplemental payment was offset against the increases received after the implementation of the annual 3% COLA in 1987. Members who retired on or after 10/1/87 are not eligible for this supplemental payment.
- 30** Michigan MERS: Each municipality may elect to provide postretirement adjustments. Plans available include: (1) 2% compounded increase; (2) "Flexible E" which provides for COLA amount and applicability as determined by municipality; (3) annual 2.5% increase (simple), to retirees on rolls at the date of adoption; and (4) annual 2.5% increase (simple), for all retirees added to rolls after adoption.
- 31** Minnesota TRA: The formula provided for a benefit increase of 0.745% for eligible retirees, effective 1/1/2003; this increase consisted of a 0.745% inflation component and a 0% excess earnings component.
- 32** Minnesota PERF: The formula provided for a benefit increase of 0.745% for eligible retirees, effective 1/1/2003; this increase consisted of a 0.745% inflation component and a 0% excess earnings component.
- 33** Minnesota SERF: The formula provided for a benefit increase of 0.745% for eligible retirees, effective 1/1/2003; this increase consisted of a 0.745% inflation component and a 0% excess earnings component.
- 34** MN-Minneapolis MTRFA: Annual 2% guaranteed increase plus additional increase based on 5-year annualized rate of return above 8.5%. Inasmuch as the 5-year annualized rate of return fell below 8.5%, the application of this formula resulted in no additional increase so that the total compounded COLA increase was limited to 2.00% payable January 1, 2003.
- 35** MN-St. Paul SPTFRA: Annual 2% guaranteed increase plus additional increase based on 5-year annualized rate of return above 8.5%. Inasmuch as the 5-year annualized rate of return fell below 8.5%, the application of this formula resulted in no additional increase so that the total compounded COLA increase was limited to 2.00% payable January 1, 2003.
- 36** Mississippi PERS: The allowances of retired members are adjusted annually by an amount equal to (a) 3% of the annual retirement allowance for each full fiscal year of retirement prior to the next year in which the member reaches age 55, plus (b) 3% compounded for each year thereafter beginning with the fiscal year in which the member turns age 55, provided that the annual adjustment will not be less than 4% of the annual retirement allowance for each fiscal year in retirement through 6/30/98.
- 37** MO-St. Louis PSRS of St. Louis: A 2.6% COLA was provided effective 7/1/2002.
- 38** Nebraska SRS: In addition, a minimum floor benefit is provided of 75% of the purchasing power of the original retirement benefit.
- 39** Nebraska SERS: At retirement, a member may "cash in" the entire amount of his/her account, purchase an annuity from the state (with or without a 2.5% COLA) or roll the money into an IRA.
- 40** NE-Omaha OSERS: Medical COLA, commencing 10 years after retirement, \$10 per month for each year of retirement, increasing by \$10 each year to a maximum of \$250 per month. For retirees with less than 20 years of service, the benefit is reduced proportionately.
- 41** Nevada PERS: No COLA during first 3 years of retirement; up to 2% after 3 years of retirement; up to 3% after 6 years of retirement; up to 3.5% after 9 years of retirement; up to 4% after 12 years of retirement; and up to 5% after 14 years of retirement.
- 42** New Hampshire NHRS: The supplemental allowance is limited to between 1% and 5% and the amount must be approved by the Fiscal Committee of the legislature. Effective 7/1/2003, teacher and state employee retirees received a 2.0% ad hoc COLA.
- 43** New Mexico ERB: COLA not to exceed 4% nor be less than 2%, unless change in CPI is less than 2% in which case COLA would equal change in CPI. Application begins in year the member attains or would have attained age 65.

- 44** New Mexico PERA: Adjustment takes place each July 1, provided retirement has been in effect for at least 2 full calendar years.
- 45** New York TRS: COLA is applicable to the first \$18,000 of pension income; COLA increase received by retired members annually after they have been retired for 5 years or more.
- 46** New York ERS: COLA is applicable to the first \$18,000 of pension income; COLA increase received by retired members annually after they have been retired for 5 years or more.
- 47** NY-New York City TRS: COLA is applicable to the first \$18,000 of pension income; COLA increase received by retired members annually after they have been retired for 5 years or more.
- 48** North Carolina TSERS: Effective 7/1/03 participants were granted a 1.28% ad hoc COLA.
- 49** North Carolina TSERS: Generally exempt to \$4,000; if retiree had 5 years of governmental service as of 8/12/89, benefits are fully exempt pursuant to North Carolina Supreme Court decision.
- 50** North Carolina LGERS: Effective 7/1/03 participants were granted a 2.0% ad hoc COLA.
- 51** North Carolina LGERS: Generally exempt to \$4,000; if retiree had 5 years of governmental service as of 8/12/89, benefits are fully exempt pursuant to North Carolina Supreme Court decision.
- 52** Ohio STRS: COLA applied only to defined benefit plan, not to alternative combined plan or alternative defined contribution plan.
- 53** Ohio STRS: \$50-\$200 credit based on taxable retirement income.
- 54** Ohio PERS: \$50-\$200 credit based on taxable retirement income.
- 55** Ohio SERS: \$50-\$200 credit based on taxable retirement income.
- 56** Oklahoma TRS: Last ad hoc adjustment was effective 7/1/02; retirees with 30+ years of service received a 4% COLA and retirees with less than 30 years of service received a 3% COLA.
- 57** Oklahoma PERS: Last ad hoc adjustment was effective 7/1/02; retirees with 30+ years of service received a 6% COLA, retirees with 25-29 years of service received a 5.5% COLA and retirees with less than 25 years of service received a 5% COLA.
- 58** Oregon PERS: Varies depending on amount of Social Security benefit received and household income level.
- 59** Pennsylvania PSERS: Legislation was passed in 2002 which granted two separate COLAs. The first COLA - for members who retired on or before July 1, 1990 - was effective on July 1, 2002; the date of retirement determines the amount of the COLA as follows: if retired before July 2, 1980, then COLA is 25.00%; if retired during the period July 2, 1980 – July 1, 1983, then COLA is 15%; if retired during the period July 2, 1983 – July 1, 1988 then COLA is 10.00%; and if retired during the period July 2, 1988 – July 1, 1990, then COLA is 8.00%. The second COLA - for members who retired after July 1, 1990 and on or before July 1, 2002 - was effective on July 1, 2003; the date of retirement determines the amount of the COLA as follows: if retired during the period July 2, 1990 – July 1, 1994, then COLA is 9.00%; if retired during the period July 2, 1994 – July 1, 1998, then COLA is 7.50%; if retired during the period July 2, 1998 – July 1, 1999 then COLA is 6.35%; if retired during the period July 2, 1999 – July 1, 2000 then COLA is 4.87%; if retired during the period July 2, 2000 – July 1, 2001 then COLA is 3.08%; and if retired during the period July 2, 2001 – July 1, 2002, then COLA is 2.27%. The COLAs are similar in structure to the last COLA granted in 1998 and seek to provide at least _ of CPI change to the eligible benefit recipients.

- 60** Pennsylvania SERS: Legislation was passed in 2002 which granted two separate COLAs. The first COLA - for members who retired on or before July 1, 1990 - was effective on July 1, 2002; the date of retirement determines the amount of the COLA as follows: if retired before July 2, 1980, then COLA is 25.00%; if retired during the period July 2, 1980 – July 1, 1983, then COLA is 15%; if retired during the period July 2, 1983 – July 1, 1988 then COLA is 10.00%; and if retired during the period July 2, 1988 – July 1, 1990, then COLA is 8.00%. The second COLA - for members who retired after July 1, 1990 and on or before July 1, 2002 - was effective on July 1, 2003; the date of retirement determines the amount of the COLA as follows: if retired during the period July 2, 1990 – July 1, 1994, then COLA is 9.00%; if retired during the period July 2, 1994 – July 1, 1998, then COLA is 7.50%; if retired during the period July 2, 1998 – July 1, 1999 then COLA is 6.35%; if retired during the period July 2, 1999 – July 1, 2000 then COLA is 4.87%; if retired during the period July 2, 2000 – July 1, 2001 then COLA is 3.08%; and if retired during the period July 2, 2001 – July 1, 2002, then COLA is 2.27%. The COLAs are similar in structure to the last COLA granted in 1998 and seek to provide at least _ of CPI change to the eligible benefit recipients.
- 61** Pennsylvania PMRS: Automatic postretirement increases are optional in plan contracts; some plan member municipalities include an automatic increase while others occasionally grant an ad hoc COLA. The most common method of granting a COLA is through the System's excess interest award. Excess interest is investment earnings on the System's assets in excess of that required for allocation to regular interest and administrative expenses. No excess interest was awarded in 2002.
- 63** Rhode Island ERSRI: Cost of living adjustments begin on the third January following an employee's retirement.
- 63** Rhode Island MERS: COLA received only if the employee's municipal group adopts this provision.
- 64** South Carolina SCRS: Up to \$3,000 excludable if under age 65; up to \$15,000 excludable if age 65 or older.
- 65** Utah SRS: Data in table refer to noncontributory system only.
- 66** Utah SRS: Retirees may qualify for general retirement income exemption of up to \$4,800 if under age 65 and \$7,500 if over age 65, subject to reductions depending on the amount of adjusted gross income earned.
- 67** Vermont STRS: Data in table applies to Group C members. For members receiving a reduced early retirement allowance, the adjustment will not apply before age 62.
- 68** Vermont MERS: The maximum increase is 2% for Group A members and 3% for Group B, Group C, and Group D members. Members receiving early retirement benefits must be at least age 62 to be eligible for this adjustment; an exception to this rule is provided for Group C and Group D members whose normal retirement age is 55.
- 69** Vermont VSRS: Data in table apply to Group F -- all general employees and probate judges hired after 7/1/87.
- 70** Wisconsin WRS: Benefits exempt from taxation only for teachers who were members of the retirement system prior to 12/31/63.

TABLE 4.
EMPLOYEE AND EMPLOYER CONTRIBUTIONS

| State/Fund | Employee Contribution Rate | Employer Contribution Rate |
|-------------------------|-----------------------------------------------------|------------------------------------------------------------------------|
| Alabama/TRS | 5.00% | 7.34% |
| Alabama/ERS | 5.00% | 4.19% |
| Alaska/TRS | 8.65% | 12.00% |
| Alaska/PERS | 7.50% police and fire, 6.75% all others 1 | 6.77% |
| Arizona/ASRS | 5.70% 2 | 5.70% 3 |
| Arkansas/ATRS | 6.00% (0.00% for noncontributory election) | 13.00% |
| Arkansas/PERS | 0.00% (6.00% for contributory election) 4 | 10.00% state division; 4.00% school division; 10.00% county, municipal |
| California/STRS | 8.00% 5 | ----- 6 |
| California/PERS | 0 to 9.00%; 7.00% for school employees 7 | ----- 8 |
| California/UCRS | 2.00 to 4.00%, less \$19/mo 8 | 0.00% |
| Colorado/PERA | 8.00% | 9.26% 10 |
| CO-Denver/DPSEPBA | 8.00% | 4.98% |
| Connecticut/TRS | 7.00% 11 | 9.27% |
| Connecticut/SERS | 0 to 5.00% 12 | 16.42% |
| Connecticut/CMERS | 2.25% - 5.00% | 3.75% for general employees |
| Delaware/SEPP | 3.00% of earnings in excess of \$6,000 | 2.99% |
| Florida/FRS | 0.00% | 6.18% 13 |
| Georgia/TRS | 5.00% | 9.24% |
| Georgia/ERS | 1.25% | 5.66% or 10.41% 14 |
| Georgia/PSERS | \$4/month for 9 months/year | \$105.67/active 15 |
| Hawaii/ERS | 0.00% or 7.80% 16 | 10.20% |
| Idaho/PERS | 5.86% | 9.77% |
| Illinois/TRS | 9.00% 17 | 13.98% 18 |
| Illinois/IMRF | 4.50% | 6.22% |
| Illinois/SERS | 8.00% w/o S.S.; 4.00% with S.S. 19 | 10.60% |
| Illinois/SURS 20 | 8.00% | 11.13% |
| IL-Chicago/PSTPRF | 9.00% | ----- 21 |
| Indiana/TRF | 3.00% | ----- 22 |
| Indiana/PERF | 3.00% | 5.20% |

TABLE 4.
EMPLOYEE AND EMPLOYER CONTRIBUTIONS

| State/Fund | Employee Contribution Rate | Employer Contribution Rate |
|------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Iowa/PERS | 3.70% | 5.75% |
| Kansas/PERS | 4.00% | 4.58% ²³ |
| Kentucky/TRS | 9.855% ²⁴ | 13.105% ²⁵ |
| Kentucky/CERS | 5.00% | 7.34% ²⁶ |
| Kentucky/KERS | 5.00% | 7.53% ²⁷ |
| Louisiana/TRSL | 8.00% ²⁸ | 14.0% |
| Louisiana/LASERS | 7.50% | 15.8% |
| Maine/MSRS | 7.65%; 8.65% for special plans | 17.30% ²⁹ |
| Maryland/TRS | 7.00% or 5.00% | 9.35% |
| Maryland/TPS | 2.00% | 9.35% |
| Maryland/ERS | 7.00% or 5.00% | 4.73% |
| Maryland/EPs | 2.00% | 4.73% |
| Massachusetts/TRS | 5.00% - 11.00% ³⁰ | ----- |
| Massachusetts/SERS | 5.00% - 9.00% ³¹ | ----- |
| Michigan/MPsERS | 3.00% of first \$5,000, 3.60% of \$5,001-\$15,000; 4.30% over \$15,000 ³² | 12.99% |
| Michigan/MSERS ³³ | 0.00% | 0.00% ³⁴ |
| Michigan/MERS | 0 to 10.00%, depending on municipal plan in effect | varies |
| Minnesota/TRA ³⁵ | 5.00% | 5.00% |
| Minnesota/PERF ³⁶ | 5.10% | 5.53% |
| Minnesota/SERF ³⁷ | 4.00% | 4.00% |
| MN-Minneapolis/MTRFA ³⁸ | 5.50% | 8.14% |
| MN-St. Paul/SPTRFA ³⁹ | 5.50% | 8.34% |
| Mississippi/PERS | 7.25% | 9.75% |
| Missouri/PSRS | 10.50% | 10.50% |
| Missouri/NTRS | 5.00% | 5.00% |
| MO-St. Louis/PSRS of St. Louis | 5.00% | 8.00% |
| Missouri/MOSERS | 0.00% | 9.35% |
| Montana/TRS | 7.15% | 7.58% |
| Montana/PERS | 6.90% ⁴⁰ | 6.90% ⁴⁰ |
| Nebraska/SRS | 7.25% | 7.32% |
| Nebraska/SERS | 4.33% up to \$19,954; 4.80% after \$19,954 ⁴¹ | 6.75% up to \$19,954; 7.50% after \$19,954 ⁴¹ |

TABLE 4.
EMPLOYEE AND EMPLOYER CONTRIBUTIONS (Continued)

| State/Fund | Employee Contribution Rate | Employer Contribution Rate |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| NE-Omaha/OSERS | 6.30% | 7.23%% 42 |
| Nevada/PERS | 0.00% for noncontributory plan, 9.75% for contributory plan | 18.75% for noncontributory plan, 9.75% for contributory plan |
| New Hampshire/NHRS (Group 1) | 5.00% | 4.06% teachers; 5.90% state 43 |
| New Jersey/TPAF | 3.00% 44 | 0.00% 45 |
| New Jersey/PERS | 3.00% 46 | 0.00% state; 0.00% local 47 |
| New Mexico/ERB | 7.60% | 8.65% |
| New Mexico/PERA | 7.42% 48 | 16.59% 49 |
| New York/TRS | ----- 50 | 0.36% |
| New York/ERS | ----- 51 | 4.50% 52 |
| NY-New York City/TRS | ----- 53 | 10.167% |
| North Carolina/TSERS | 6.00% | 3.42% 54 % |
| North Carolina/LGERS | 6.00% | 4.80% + UAAL 55 |
| North Dakota/TFFR | 7.75% | 7.75% |
| North Dakota/PERS | 4.00% | 4.12% |
| Ohio/STRS | 10.00% | 14.00% 56 |
| Ohio/PERS | 8.50% | ----- 57 |
| Ohio/SERS | 9.00% | 14.00% |
| Oklahoma/TRS | 7.00% | 4.70% state/federal + 7.05% local |
| Oklahoma/PERS | 3.00% up to \$25,000, 3.50% thereafter 58 | 10.00% 59 |
| Oregon/PERS | 6.00% | 11.31% state; 11.11% schools |
| Pennsylvania/PSERS | 5.25% (members before 7/22/83), 6.25% (members on/after 7/22/83) OR 6.50% (members before 7/22/83), 7.50% (members on/after 7/22/83) 60 | 1.15% 61 |
| Pennsylvania/SERS | 5.00% or 6.25% 62 | 0.00% |
| Pennsylvania/PMRS | 3.00% - 8.00% | Varies 63 |
| Rhode Island/ERSRI | 9.50% teachers; 8.75% state employees | 13.72% teachers; 9.60% state |
| Rhode Island/MERS | 6.00% until max. benefit (75% FAS) is accrued 64 | Varies for each employer |
| South Carolina/SCRS | 6.00% 65 | 7.55% 65 |

TABLE 4.
EMPLOYEE AND EMPLOYER CONTRIBUTIONS

| State/Fund | Employee Contribution Rate | Employer Contribution Rate |
|--------------------|-------------------------------------------------------------------------------------|---------------------------------------|
| South Dakota/SDRS | 6.00% 66 | 6.00% |
| Tennessee/CRS | 0.00% or 5.00% 67 | 3.40% teachers; 7.30%state |
| Texas/TRS | 6.40% | 6.00% |
| Texas/ERS | 6.00% | 6.00% |
| Utah/SRS 68 | 0.00% | 10.40% |
| Vermont/STRS | 3.54% | 4.88% |
| Vermont/MERS | 2.5% (Group A); 4.5% (Group B); 9.0% (Group C); 11.0% (Group D); 5.0% DC Plan | ----- 69 |
| Vermont/VSRS | 3.35% 70 | 7.30% |
| Virginia/VRS | 5.00% teachers or state employees | 3.77% teachers; 3.77% state |
| Washington/TRS | 6.00% (Plan 1); 0.15% (Plan 2); various options (Plan 3) 71 | 1.27% (Plans 1, 2 and 3) |
| Washington/SERS | 0.35% (Plan 2); various options (Plan 3) 71 | 1.18% (Plans 2 and 3) |
| Washington/PERS | 6.00% (Plan 1); 0.65% (Plan 2); various options (Plan 3) 71 | 1.32% (Plans 1, 2 and 3) |
| West Virginia/TRS | 6.00% | 20.39% |
| West Virginia/TDC | 4.50% | 7.50% |
| West Virginia/PERS | 4.50% | 9.50% |
| Wisconsin/WRS | 5.00% | 5.60% 72 |
| Wyoming/WRS | 5.57% | 5.68% |

Table 4.
Footnotes

- 1** Alaska PERS: Contribution rates in table are for Tier II employees (hired on or after 7/1/86) and Tier III employees (hired on or after 7/1/96). In addition, noncertificated school employees who work less than 12 months per year and have elected the alternative service option, contribute an amount necessary to fund benefits to receive 12 months of credit (9.6% in CY 2002).
- 2** Arizona ASRS: Includes 0.50% for Long-Term Disability Program.
- 3** Arizona ASRS: Includes 0.50% for Long-Term Disability program.
- 4** Arkansas PERS: Anyone joining the system subsequent to 1/1/78 was automatically enrolled as a noncontributory member.
- 5** California STRS: One-quarter of 8% member contribution (i.e., 2%) is allocated to member's Defined Benefit Supplement account through 12/31/2010. All members of the Defined Benefit Program who perform creditable service and earn creditable compensation after 12/31/2000 have a Defined Benefit Supplement account which are nominal accounts established for the purpose of determining DBS benefits payable to the member; accounts are credited with contributions, interest at the minimum rate, and, if applicable, additional earnings credit determined for the plan year by the TRS Board (based on the actual earnings during the plan year but only to the extent the earnings are sufficient to credit the minimum interest rate and provide any additions to the gain and loss reserve deemed warranted by the Board).
- 6** California STRS: Employers contribute 8.25% of member earnings and state contributes an additional 2.017%.
- 7** California PERS: Varies by employer and membership categories. Employee contributions for major groups are as follows: Classified school employees = 7%; State Miscellaneous Tier 1 = 5% or 6%, depending on whether covered by Social Security; and State Miscellaneous Tier 2 = 0%.
- 8** California PERS: Varies by employer and membership categories. Employer contributions for major groups are as follows: State Miscellaneous Tier 1 = 7.413%; State Miscellaneous Tier 2 = 2.813%; Classified School Employees = 2.771.
- 9** California UCRS: The contribution rate is 2% of annual earnings up to the Social Security wage base (\$80,400), then 4% on any subsequent annual earnings for members with Social Security coverage. The contribution rate for members without Social Security is 3%. At 7/1/2002 the system had 109,709 members with Social Security and 7,614 members without Social Security.
- 10** Colorado PERA: Rate in table applies to State and School Division employees. These employer contribution rates include 1.10% of member payroll for State and School Division employers designated to the PERA Health Care Trust Fund to pay health care premium subsidies for benefit recipients.
- 11** Connecticut TRS: 6% toward pension benefits, plus 1% for survivors' (pre-retirement) benefits and retiree health insurance.
- 12** Connecticut SERS: Employee contributions vary by plan. For Tier II employees (except hazardous duty): 0% (i.e., non-contributory). For Tier II hazardous duty: 4%. For Tier II-A non-hazardous duty: 2%. For Tier II-A hazardous duty: 5%. For Tier I hazardous duty: 4% up to Social Security taxable wage base plus 5% above Social Security taxable wage base. For Tier I-Plan B: 2% up to Social Security taxable wage base plus 5% above Social Security taxable wage base. For Tier I-Plan C: 5%.

- 13** Florida FRS: Rate in table is for FY2003-2004 and does not include 1.11% health insurance subsidy contribution or 0.10% administrative/educational fee. A defined contribution alternative to the current defined benefit plan was introduced in 2002; the employer contribution rate has been “blended” so the employer pays the same contribution rate by membership class, regardless of whether the member is active in the defined benefit plan or the defined contribution plan.
- 14** Georgia ERS: State contributes 5.66% for old plan (before 7/1/82) members and 10.41% for new plan members.
- 15** Georgia PSERS: The state of Georgia, though not the employer of PSERS members, is required by statute to make employer contributions as actuarially determined to be sufficient to support the benefits of the system.
- 16** Hawaii ERS: 0.00% for noncontributory plan and 7.80% for contributory plan; these rates apply teachers and most state and county employees.
- 17** Illinois TRS: Does not include 0.75% for retiree health insurance administered by separate state agency.
- 18** Illinois TRS: In addition local employers contribute 0.50% for retiree health insurance and 0.58% for early retirement option, early retirement incentive program and the 2.2% formula enhancement,
- 19** Illinois SERS: Employer paid for most state employees (i.e., effective employee contribution rate is 0% for coordinated employees, 4% for non-coordinated employees).
- 20** Illinois SURS: Alternative self managed defined contribution plan members contribute 8.0% and their employers contribute 7.6% less the amount (1.0%) retained by SURS to provide disability benefits.
- 21** IL-Chicago PSTPRF: Public Act 90-548, signed into law on 12/4/97, provided that the Board of Education contribution shall not be in excess of the amount needed to maintain the ratio of assets to total actuarial liability at the 90% level (approximately 1.5% or \$28.4 million Board of Education contribution requirement estimated for FY2004).
- 22** Indiana TRF: Employer contribution for "closed plan" is 17.00%; employer contribution for "new plan" is 9.00%. TRF is funded on a “pay as you go” basis; state appropriations are made for the estimated pension benefit for each fiscal year; however, effective 7/1/95, the employer makes contributions annually for employees hired on or after 7/1/95.
- 23** Kansas PERS: Data in table applies to state employees and school employees; rate does not include statutory 0.6% contribution for death and disability program inasmuch as legislation enacted in 2003 established a five quarter moratorium on employer contributions to the death and disability fund over the period 4/1/2003 through 6/30/2004..
- 24** Kentucky TRS: Non-university members are required to contribute 9.855% of their salaries to the system. University members are required to contribute 8.375% of their salaries, but state law allows each university to reduce the contribution of its members by 2.215% to offset Social Security contributions (unlike K-12 teachers, university members are also Social Security members); therefore, university members contribute 6.160% of their salary to TRS. Member contributions also include a 0.75% contribution for a postretirement medical program.
- 25** Kentucky TRS: The state contributes 13.105% of salaries for its non-university members and 13.840% of salaries for university members. Employer contributions also include a 0.75% contribution for a postretirement medical program.
- 26** Kentucky CERS: Rate in table is for non-hazardous employees and it includes a 4.95% contribution for a postretirement medical program.
- 27** Kentucky KERS: Rate in table is for non-hazardous employees and it includes a 4.67% contribution for a postretirement medical program.
- 28** Louisiana TRSL: Members in Regular Plan contribute 8.0%, members in Plan A contribute 9.1%, and members in Plan B contribute 5.0%.
- 29** Maine MSRS: Data in table are the composite state contribution rate for all state employees and teachers.. For state employees excluding eight special groups and teachers, the state contributions rate is 13.71%. For teachers, the state contribution rate is 18.88% of payroll.

- 30** Massachusetts TRS: Contributions vary depending on most recent date of membership. Prior to 1975: 5% of regular compensation; 1975 to 1983: 7% of regular compensation; 1984 to 7/1/96: 8% of regular compensation; 7/1/96 to present: 9%; in addition, for employees who started on or after 1/1/79 to present: additional 2% of regular compensation in excess of \$30,000. Effective 9/2000, members who elect to participate in the Alternative Retirement Benefit program ("Retirement Plus") and anyone hired after 7/1/01, are required to pay an 11% contribution.
- 31** Massachusetts SERS: Contributions vary depending on most recent date of membership. Prior to 1975: 5% of regular compensation; 1975 to 1983: 7% of regular compensation; 1984 to 7/1/96: 8% of regular compensation; 7/1/96 to present: 9%; in addition, for employees who started on or after 1/1/79 to present: additional 2% of regular compensation in excess of \$30,000. Higher education faculty with less than 10 years SERS service may participate in a an Optional Retirement Plan, a defined contribution alternative for which the employee contribution varies from 7% to 11% depending on date of hire and the employer's contribution is 5%.
- 32** Michigan MPSERS: Data in table refer to Member Investment Plan (MIP) participants hired on or after 1/1/90. For MIP members hired before 1/1/90, the contribution rate is 3.9%. Basic Plan members make no contribution.
- 33** Michigan MSERS: New employees hired on or after 3/31/97 do not participate in MSERS. Instead they participate in a defined contribution plan administered by the state Office of Retirement Services. In addition, state employees hired prior to 3/31/97 were granted the option to withdraw from the defined benefit plan and irrevocably enroll in the defined contribution plan. Under the defined contribution plan, the state contributes 4% and will additionally match employee contributions of up to 3%.
- 34** Michigan MSERS: Pursuant to Public Act 93 of 2002, state's contribution may be transferred instead to the Health Advance Funding subaccount within the Health Plan, effectively reducing pension plan contributions to \$0 as occurred at the end of FY2002.
- 35** Minnesota/TRA: Contribution rates in table are for coordinated plan.
- 36** Minnesota/PERF: Contribution rates in table are for coordinated plan.
- 37** Minnesota/SERF: Contribution rates in table are for coordinated plan.
- 38** MN-Minneapolis MTRFA: Contribution rates in table are contribution rates required by statute for coordinated plan established 7/1/78.
- 39** MN-St. Paul SPTRFA: Contribution rates in table are for coordinated plan established 7/1/78.
- 40** Montana PERS: Montana PERS: Data in table are for traditional defined benefit (DB) plan. Effective 7/1/02, an optional defined contribution (DC) plan available. Currently active and new members given the opportunity to choose membership in either the DB plan or the DC plan; all active members have 12 month period to make the choice which is then irrevocable. Employee contributes 6.9% into DC plan and employer contributes 4.19% into employee's DC account; employer also contributes 2.37% to the defined benefit plan choice rate per DC plan participant, 0.04% to the defined contribution education fund, and 0.03% to the long-term disability plan.
- 41** Nebraska SERS: Contribution rates in table are for state employees; state contributes 156% of employee contribution. For county plan, the employee contribution rate is 4.5% and the employer's contribution is 150% of the employee contribution rate. Contribution rates are the same for defined contribution plan option and cash balance plan option.
- 42** NE-Omaha OSERS: Employer contribution rate in table is school district contribution (the school district is obligated to pay the greater of 100% of the member contributions or such amount as may be necessary to maintain the solvency of the system). In addition to employer contribution, the state contributes 0.7% of the members' compensation plus \$973,301 annually.
- 43** New Hampshire NHRS: Employer contribution for state employees of 5.90% is 100% paid by state; employer contribution for teachers of 4.06% is 35% paid by state (i.e., 1.42%) and the remainder paid by school districts (i.e., 2.64%).

- 44** New Jersey TPAF: 1994 legislation established a 5.0% uniform contribution rate for all members by 7/1/96; however, 2001 legislation allowed a temporary reduction to 3.0%. That legislation allowed the State Treasurer to use surplus pension fund assets to offset employer contributions; if the Treasurer makes such an offset, the employee contribution is reduced up to 2%.
- 45** New Jersey TPAF: All but post-retirement medical expense is offset by surplus pension fund assets.
- 46** New Jersey PERS: 1994 legislation established a 5.0% uniform contribution rate for all members by 7/1/96; however, 1997 legislation allowed a temporary reduction to 4.5% based on availability of excess assets in the pension funds, which was further reduced in 2000 to 3.0%.
- 47** New Jersey PERS: All but post-retirement medical expense is offset by surplus pension fund assets.
- 48** New Mexico PERA: Rates in table are for state general member in Coverage Plan 3.
- 49** New Mexico PERA: Rates in table are for state general member in Coverage Plan 3; for municipal general member in Coverage Plan 3, the employer contribution rate is 9.15%. Other contribution rates for other plans and types of members vary.
- 50** New York TRS: 0.00% for Tier 1, Tier 2; 0.00% for Tier 3, Tier 4 with 10+ years of membership; 3.00% for Tier 3, Tier 4 with less than 10 years of membership.
- 51** New York ERS: 0.00% for Tier 1, Tier 2; 0.00% for Tier 3, Tier 4 with 10+ years of membership; 3.00% for Tier 3, Tier 4 with less than 10 years of membership.
- 52** New York ERS: Rate effective for FY03-04.
- 53** NY-New York City TRS: 0.00% for Tier 1, Tier 2; 0.00% for Tier 3, Tier 4 with 10+ years of membership; 3.00% for Tier 3, Tier 4 with less than 10 years of membership.
- 54** North Carolina TSERS: Rate in table is for state contribution in FY2003-04 for retirement (0.22%) plus retiree healthcare (3.20%).
- 55** North Carolina LGERS: Rate in table is normal contribution rate; the additional accrued liability rate, if any, varies with each employing unit depending on the amount of prior service that was awarded to the members.
- 56** Ohio STRS: Combined rate of 14% is allocated between defined benefit pension plan (13%) and retiree healthcare plan (1%).
- 57** Ohio PERS: Employer rate varies by type of covered employees; for example, : state employees: 13.31% and local, non-law enforcement employees: 13.55%..
- 58** Oklahoma PERS: Rate shown in table is for state employees. Employees of participating county and local agencies contribute between 3.5% and 8.5% of salary, depending upon the election of the local entity.
- 59** Oklahoma PERS: Rate shown in table is for state agency employees. Employer contributions for county and local agencies are 5% to 10%, depending upon the election of the local entity. The total employer/employee contribution for county and local entities must be 13.5%.
- 60** Pennsylvania PSERS: A new membership class was established in 2001 which provided for an increased benefit multiplier (2.5%); if a member elected this new membership class, the member contribution rate increased by 1.25%.
- 61** Pennsylvania PSERS: Effective July 1, 2003, the combined contribution rate for employers and the state set at 3.77% of covered payroll.
- 62** Pennsylvania SERS: A new membership class was established in 2001 which provided for an increased benefit multiplier (2.5%); if a member elected this new membership class (as most did), the member contribution rate increased by 1.25%.
- 63** Pennsylvania PMRS: The PMRS is an agent multiple-employer system with separate rates of contribution for each employer. There is a wide range of employer contributions.

- 64** Rhode Island MERS: Rate applicable to non-uniformed municipal employees. Increases to 7% with postretirement cost of living increase.
- 65** South Carolina SCRS: Optional defined contribution plan available with same contribution rates (but only 5% of employer 7.55% contribution directed into employee's investment account; remainder retained by SCRS).
- 66** South Dakota SDRS: Data in table are for Class A Members; Class B Public Safety Member contributions are 8% and Class B Judicial Member contributions are 9%.
- 67** Tennessee CRS: Participating political subdivisions may either adopt noncontributory retirement provisions or require employee contributions. The contribution rate for local government employees is 5.0% up to the Social Security wage base and 5.5% above the Social Security wage base, unless the employing government has authorized a level 5.0%. Public school teachers contribute at a rate of 5.0% of gross salary.
- 68** Utah SRS: Data in table refer to noncontributory system only; does not include employer contributions to the employee's 401-k plan.
- 69** Vermont MERS: Employer contribution is 4.0% for Group A, 5.0% for Group B, 6.0% for Group C, 9.0% for Group D and 5.0% for DC Plan members.
- 70** Vermont VSRS: The membership consists of employees who belong to the original contributory system with a contribution rate of 5.10% (Groups A and D) or 6.28% (Group C) and vested members of the new system who contribute at a rate of 3.35% of covered payroll (Group F).
- 71** Washington TRS/SERS/PERS: Plan 3 is a combination defined benefits/defined contribution plan in which the employer contribution funds the defined benefit portion of the plan while the employee contribution funds the defined contribution portion of the plan; the employee has six contribution rate options available ranging from 5% to 15% and two of these options are graduated depending on the employee's age.
- 72** Wisconsin WRS: Rate in table includes employer contribution for unfunded actuarial liability. Employers also may pay other contributions for duty disability benefits and accumulated sick leave conversion credit program.

TABLE 5.
BENEFIT FORMULA AND LIMITATIONS

| State/Fund | Final Average Salary Period | Benefits Formula (FAS = Final Average Salary) | Limitation |
|-----------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Alabama/TRS | 3H/10 | 2.0125% x yrs x FAS | None |
| Alabama/ERS | 3H/10 | 2.0125% x yrs x FAS | None |
| Alaska/TRS | 3H | [2.00% x 1st 20 yrs + 2.50% x 20+ yrs] x FAS 1 | None |
| Alaska/PERS | 3HC 2 | [2.00% x 1st 10 yrs + 2.25% x 2nd 10 yrs + 2.50% x 20+ yrs] x FAS | None |
| Arizona/ASRS | 3HC/10 | [(2.10% x yrs up to 20) + (2.15% x 20+yrs up to 25) + (2.20% x 25+yrs up to 30) + (2.30% x 30+yrs) x FAS] | None 3 |
| Arkansas/ATRS | 3H | [2.15% x yrs with member contrib. + 1.39% x yrs without member contrib.] x FAS | None |
| Arkansas/PERS | 3HC | [(1.75% x yrs x FAS, for service prior to 7/1/01) + (1.72% x yrs x FAS, for service after 7/1/01)] 4 | None |
| California/STRS | 3HC or 1HC 5 | 2.00% x yrs x FAS 6 | None |
| California/PERS | 3HC or 1HC 7 | 2.00% x yrs x FAS 8 | None 9 |
| California/UCRS | 3HC | 2.50% x yrs x (FAS - \$133) 10 | 100% FAS |
| Colorado/PERA | 3H | 2.50% x yrs x FAS 11 | 100% FAS |
| CO-Denver/DPSRS | 3H | 2.50% x yrs x FAS | None |
| Connecticut/TRS | 3H | 2.00% x yrs x FAS 12 | 75% FAS |
| Connecticut/SERS | 3H | ----- 13 | None |
| Connecticut/CMERS | 3H | ----- 14 | 100% FAS |
| Delaware/SEPP | 3H | [(2.00% x yrs x FAS, for service prior to 1/1/97) + (1.85% x yrs x FAS, for service after 12/31/96)] | None |
| Florida/FRS 15 | 5H | [(1.60% for age 62 or A/30) or (1.63% for age 63 or A/31) or (1.65% for age 64 or A/32) or (1.68% for age 65 or A/33)] x yrs x FAS | None |
| Georgia/TRS | 2HC | 2.00% x yrs x FAS | 40 yrs max. |
| Georgia/ERS | 2H | 2.00% x yrs x FAS | None |
| Georgia/PSERS | ---- | \$12.50/month x yrs | None |
| Hawaii/ERS | 3H | Noncontributory: 1.25% x yrs x FAS; contributory: 2.00% x yrs x FAS | None |
| Idaho/PERS | 3.5HC | 2.00% x yrs x FAS | None |

H = Highest years HC = Highest consecutive years

TABLE 5
BENEFIT FORMULA AND LIMITATIONS (Continued)

| State/Fund | Final Average Salary Period | Benefits Formula (FAS = Final Average Salary) | Limitation |
|--------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------|------------|
| Illinois/TRS | 4HC/10 | 2.20% x yrs x FAS 16 | 75% FAS |
| Illinois/IMRF | 4HC/10 | [1.67% x 1st 15 yrs + 2.00% x yrs over 15] x FAS | 75% FAS |
| Illinois/SERS | 4H/10 | 1.67% x yrs x FAS (Social Security Coordinated Formula) or 2.20% x yrs x FAS (Non-Coordinated Formula) | 75% FAS |
| Illinois/SURS | 4HC | 2.20% x yrs x FAS | 80% FAS |
| IL-Chicago/PSTPRF | 4H/10 | 2.20% x yrs x FAS 17 | 75% FAS |
| Indiana/TRF | 5H | 1.10% x yrs x FAS + employee money purchase annuity | None |
| Indiana/PERF | 5H | 1.10% x yrs x FAS + employee money purchase annuity | None |
| Iowa/PERS | 3H | 2.00% x yrs (up to 30) x FAS; + 1.00% for each year 31 through 35 | 65% FAS |
| Kansas/PERS | 3H 18 | 1.75% x yrs x FAS | None |
| Kentucky/TRS | 5H 19 | [(2.00% x yrs x FAS, for service prior to 7/1/83) + (2.50% x yrs x FAS, for service after 6/30/83)] 20 | None |
| Kentucky/CERS | 5H 21 | 2.20% x yrs x FAS | None |
| Kentucky/KERS | 5H 22 | 2.20% x yrs x FAS 23 | None |
| Louisiana/TRSL | 3HC | 2.50% x yrs x FAS 24 | 100% FAS |
| Louisiana/LASERS | 3HC | 2.50% x yrs x FAS 25 | 100% FAS |
| Maine/MSRS | 3H | 2.00% x yrs x FAS | None |
| Maryland/TRS | 3H | 1.80% x yrs x FAS | None |
| Maryland/TPS | 3HC | [(1.40% x yrs x FAS for service on/after 7/1/98) + (1.20% x yrs x FAS for service prior to 7/1/98)] | None |
| Maryland/ERS | 3H | 1.80% x yrs x FAS | None |
| Maryland/EPS | 3HC | [(1.40% x yrs x FAS for service on/after 7/1/98) + (1.20% x yrs x FAS for service prior to 7/1/98)] | None |
| Massachusetts/TRS | 3HC | If age 65, then 2.50% x yrs x FAS 26 | 80% FAS |
| Massachusetts/SERS | 3HC | If age 65, then 2.50% x yrs x FAS 27 | 80% FAS |
| Michigan/MPERS | 3HC | 1.50% x yrs x FAS | None |
| Michigan/MSERS 28 | 3HC | 1.50% x yrs x FAS | None |
| Michigan/MERS | 5HC or 3HC | Various plans 29 | None |

H = Highest years HC = Highest consecutive years

TABLE 5
BENEFIT FORMULA AND LIMITATIONS (Continued)

| State/Fund | Final Average Salary Period | Benefits Formula (FAS = Final Average Salary) | Limitation |
|-----------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------|
| Minnesota/TRA | 5HC | 1.70% x yrs x FAS | 100% FAS |
| Minnesota/PERF | 5HC | 1.70% x yrs x FAS | 100% FAS |
| Minnesota/SERF | 5HC | 1.70% x yrs x FAS | 100% FAS |
| MN-Minneapolis/MTRFA | 5HC | 1.70% x yrs x FAS | 100% FAS |
| MN-St. Paul/SPTRFA | 5HC | 1.70% x yrs x FAS | 100% FAS |
| Mississippi/PERS | 4HC | 2.00% x FAS x yrs (to 25) + 2.50% x FAS x yrs (over 25) | \$150,000 max. earnings |
| Missouri/PSRS | 3HC | 2.50% x yrs x FAS 30 | 100% FAS |
| Missouri/NTRS | 3HC | 1.61% x yrs x FAS 31 | None |
| MO-St.Louis/ PSRS of St. Louis | 3HC/10 | 2.00% x yrs x FAS | 60% FAS |
| Missouri/MOSERS | 3HC | 1.70% x yrs x FAS 32 | None |
| Montana/TRS | 3HC | 1.67% x yrs x FAS | None |
| Montana/PERS | 3HC | 1.785% x yrs x FAS if less than 25 yrs of service; 2.00% x yrs x FAS if greater than 25 yrs of service 33 | None |
| Nebraska/SRS | 3H | 2.00% x yrs x FAS | None |
| Nebraska/SERS | ----- | ----- 34 | None |
| NE-Omaha/OSERS | 3H | 2.00% x yrs x FAS | None |
| Nevada/PERS | 3HC | [(2.50% x yrs x FAS, for service prior to 7/1/01) + (2.67% x yrs x FAS, for service after 7/1/01)] | 75% FAS |
| New Hampshire/ NHRS (Group 1) | 3H 35 | To age 65: 1.67% x yrs x FAS; thereafter, 1.515% x yrs x FAS | None |
| New Jersey/TPAF | 3H | 1.8181% x yrs x FAS | None |
| New Jersey/PERS | 3H | 1.8181% x yrs x FAS | None |
| New Mexico/ERB | 5HC | 2.35% x yrs x FAS | None |
| New Mexico/PERA | 3HC | 3.00% x yrs x FAS 36 | 80% FAS |
| New York/TRS | 3HC | 2.00% x FAS x yrs to 30 yrs + 1.50% x FAS x yrs after 30 yrs 37 | None |
| New York/ERS | 3HC | 2.00% x FAS x yrs to 30 yrs + 1.50% x FAS x yrs after 30 yrs 38 | None |
| NY-New York City/TRS | 3HC | 2.00% x FAS x yrs to 30 yrs + 1.50% x FAS x yrs after 30 yrs 39 | None |
| North Carolina/TSERS | 4HC | 1.82% x yrs x FAS | None |
| North Carolina/LGERS | 4HC | 1.85% x yrs x FAS | None |

H = Highest years HC = Highest consecutive years

TABLE 5
BENEFIT FORMULA AND LIMITATIONS (Continued)

| State/Fund | Final Average Salary Period | Benefits Formula (FAS = Final Average Salary) | Limitation |
|---------------------|-----------------------------|------------------------------------------------------------------------------------------|-----------------|
| North Dakota/TFFR | 3H | 2.00% x yrs x FAS | None |
| North Dakota/PERS | 3H/10 | 2.00% x yrs x FAS | None |
| Ohio/STRS | 3H | 2.20% x FAS x yrs to 30 yrs 40 | 100% FAS |
| Ohio/PERS | 3H | 2.20% x FAS x yrs to 30 yrs + 2.50% x FAS x 30+yrs 41 | 100% FAS |
| Ohio/SERS | 3H | 2.20% x FAS x yrs to 30 yrs + 2.50% x FAS x 30+yrs | 100% FAS |
| Oklahoma/TRS | 5HC 42 | 2.00% x yrs x FAS | None |
| Oklahoma/PERS | 3H/10 | 2.00% x yrs x FAS | None |
| Oregon/PERS | 3H | 1.67% x yrs x FAS | None |
| Pennsylvania/PSERS | 3H | 2.50% x yrs x FAS 43 | ----- 44 |
| Pennsylvania/SERS | 3H | 2.50% x yrs x FAS 45 | ----- 46 |
| Pennsylvania/PMRS | Varies | Varies | None |
| Rhode Island/ERSRI | 3HC | [1.70% x 1st 10 yrs] + [1.90% x 2nd 10 yrs] + [3.00 x yrs 20-34] + [2.00% x yr 35] x FAS | 80% FAS |
| Rhode Island/MERS | 3HC | 2.00% x yrs x FAS 47 | 75% FAS |
| South Carolina/SCRS | 3HC | 1.82% x yrs x FAS 48 | None |
| South Dakota/SDRS | 3HC/10 | [(1.625% x yrs before 7/1/2002 x FAS) + (1.55% x yrs after 6/30/2002 x FAS)] 49 | None |
| Tennessee/CRS | 5HC | 1.50% x yrs x FAS + 0.25% x yrs x [FAS - Social Security Integration Level] 50 | 94.5% FAS |
| Texas/TRS | 3H | 2.30% x yrs x FAS | None |
| Texas/ERS | 3H | 2.30% x yrs x FAS | 100% FAS |
| Utah/SRS 51 | 3H | 2.00% x yrs x FAS | None |

H = Highest years HC = Highest consecutive years

TABLE 5
BENEFIT FORMULA AND LIMITATIONS (Continued)

| State/Fund | Final Average Salary Period | Benefits Formula (FAS = Final Average Salary) | Limitation |
|----------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------|------------|
| Vermont/STRS-Group C | 3HC | [(1.25% x yrs before 7/1/1990 x FAS) + (1.67% x yrs after 7/1/1990 x FAS)] | 50% FAS |
| Vermont/MERS-Group A | 5HC | ----- 52 | 60% FAS |
| Vermont/MERS-Group B | 3HC | ----- 53 | 60% FAS |
| Vermont/MERS-Group C | 3HC | ----- 54 | 50% FAS |
| Vermont/MERS-Group D | 3HC | ----- 54 | 50% FAS |
| Vermont/VSRS-Group F | 3HC | [(1.25% x yrs before 1/1/1991 x FAS) + (1.67% x yrs after 12/31/1990 x FAS)] | 50% FAS |
| Virginia/VRS | 3HC | 1.70% x yrs x FAS | None |
| Washington/TRS-Plan 1 | 2HC | 2.00% x yrs x FAS | 60% FAS |
| Washington/TRS-Plan 2 | 5HC | 2.00% x yrs x FAS | None |
| Washington/TRS-Plan 3 | 5HC | 1.00% x yrs x FAS, plus DC accumulation | None |
| Washington/ SERS-Plan 2 | 5HC | 2.00% x yrs x FAS | None |
| Washington/ SERS-Plan 3 | 5HC | 1.00% x yrs x FAS, plus DC accumulation | None |
| Washington/ PERS-Plan 1 | 2HC | 2.00% x yrs x FAS | 60% FAS |
| Washington/ PERS-Plan 2 | 5HC | 2.00% x yrs x FAS | None |
| Washington/ PERS-Plan 3 | 5HC | 1.00% x yrs x FAS, plus DC accumulation | None |
| West Virginia/TRS | 5H/15 | 2.00% x yrs x FAS | None |
| West Virginia/TDC | ----- | Money purchase | ----- |
| West Virginia/PERS | 3HC/10 | 2.00% x yrs x FAS | None |
| Wisconsin/WRS | 3H | [(1.60% x yrs x FAS for service after 1999) + (1.765% x yrs x FAS for service prior to 2000)] 55 | 70% FAS |
| Wyoming/WRS | 3HC | 2.00% x 1st 15yrs x FAS + 2.25% x yrs after 15 x FAS | None |

H = Highest years HC = Highest consecutive years

Table 5. Footnotes

- 1** Alaska TRS: $FAS \times 2.5\%$ for 20+ years, except that service before July 1, 1990, is calculated at 2%.
- 2** Alaska PERS: 5HC for members hired after 7/1/96.
- 3** Arizona ASRS: Members enrolled on or after 8/9/2001 limited to 80% FAS.
- 4** Arkansas PERS: If retirement is prior to age 62, an additional 0.33% paid until age 62; the portion of the benefit based on service before 1978 cannot be less than the amount provided by the contributory provisions in effect at the time of retirement. The current contributory formula is $[2.11\% \times \text{yrs} \times FAS \text{ for service prior to } 7/1/01 + 2.07\% \times \text{yrs} \times FAS \text{ for service after } 7/1/01]$.
- 5** California STRS: 1HC if member has 25+ yrs of service; 1HC for classroom teachers with less than 25 yrs of service if contracted with local employers. In addition, 3HC may become 3H if member's salary has been reduced because of a reduction in school funds.
- 6** California STRS: The 2.00% retirement factor is for normal retirement at age 60 with less than 30 years of service. This factor increases with each quarter year of age to a maximum of 2.4% at age 63 for a member with less than 30 years of service. In addition, a career bonus of 0.2% is added to the factor for 30 or more years of service, to a maximum of 2.4%. Thus, for example, a member who retires at age 62 with 30 or more years of service will have earned the maximum benefit factor of 2.4%. Beginning 1/1/2001 through 12/31/2010, members with 30+ yrs of service also receive a longevity bonus as part of their monthly allowance: \$200 for 30 yrs of service, \$300 for 31 yrs of service and \$400 for 32+ yrs of service.
- 7** California PERS: 1 HC for classified school employees and for state employees; local employers can contract for 1HC or 3HC.
- 8** California PERS: The 2.00% retirement factor is for normal retirement at age 55; the benefit factor increases for each quarter beyond age 55 to a maximum of 2.50% at age 63. Benefits formula shown in table is for state Tier 1 members and school members at age 55, not coordinated with Social Security. For service coordinated with Social Security, the same basic benefit rate applies; however, there is a reduction of \$133.33 (or one-third of the first \$400) of first compensation for service prior to 1/1/2000. For state Tier 2 members, the benefits formula is $1.25\% \times FAS \times \text{years}$, at age 65. Other plans may have different formulas.
- 9** California PERS: No limit for state miscellaneous, school members, university members, or local miscellaneous members; 90% FAS for certain uniformed officers and 85% or 90% FAS for local safety members.
- 10** California UCRS: Formula in table is for member retiring at age 60 or later with Social Security coverage.
- 11** Colorado PERA: A money purchase benefit is also calculated and is paid to the retiree in the alternative if the money purchase benefit is higher than the defined service retirement benefit. The money purchase benefit is determined by the member's life expectancy, the value of the member's contribution account, and a matching amount equal to 100% of the member's contributions plus interest; member contribution accounts accrue interest at a rate set by law as 80% of PERA's actuarial investment assumption rate..
- 12** Connecticut TRS: Plus any additional amounts derived from 6th percent contribution made prior to 7/1/85 and voluntary contributions by employees.
- 13** Connecticut SERS: Tier II non-hazardous employees and Tier II-A non-hazardous employees joining the system after 1/1/84 receive the following benefit: $[(\text{up to } 35 \text{ yrs} \times 1.33\% \times FAS) + (\text{up to } 35 \text{ yrs} \times 0.50\% \times FAS \text{ greater than "breakpoint"}) + (\text{yrs in excess of } 35 \times 1.625\% \times FAS)]$; "breakpoint" is defined as \$10,700 increased by 6% each year after 1982, rounded to the nearest \$100, but not greater than Social Security Covered Compensation. Two other plans cover non-hazardous employees: Tier I, Plan B, provides for $2\% \times \text{yrs} \times FAS$ to age 65 and thereafter $\text{yrs} \times [1\% \times FAS \text{ to } \$4,800 + 2\% \times FAS \text{ above } \$4,800]$; Tier I, Plan C provides for $2\% \times \text{yrs} \times FAS$.

- 14** Connecticut CMERS: For members eligible for Social Security on or after January 1, 2002, benefit formula is $1\frac{1}{2}\%$ of FAS up to the "breakpoint" (in the calendar year in which the member severs municipal service) plus 2% of the member's FAS in excess of such "breakpoint" multiplied by years and completed months of service. The "breakpoint" is defined as \$10,700 increased by 6% each year after 1982, rounded to the nearest \$100, but not greater than Social Security Covered Compensation. For members not covered by Social Security, the pension benefit is 2% of average final compensation (3H) multiplied by years of service.
- 15** Florida FRS: Data in table is for the traditional pension plan which covers about 9% of current active FRS participants. Employees also have the option of enrolling in the state sponsored Investment Plan, a pure defined contribution alternative, or, employees with five years of service, may choose a hybrid option which offers a certain level of fixed retirement benefits while directing future contributions to the Investment Plan.
- 16** Illinois TRS: From 7/1/98, future service is accrued at 2.2%. Formula in table applies to such service as well as for those members who have upgraded all years of service prior to 7/1/98 by making contributions to upgrade old formula service credit. Maximum number of years upgraded is 20. If member did not upgrade, then service before 7/1/98 is valued according to previous formula (i.e., $[1.67\% \times 1\text{st } 10 \text{ yrs.} + 1.90\% \times 2\text{nd } 10 \text{ yrs} + 2.10\% \times 3\text{rd } 10 \text{ yrs} + 2.30\% \times 30+ \text{ yrs}] \times \text{FAS}$).
- 17** IL-Chicago/PSTPRF: From 7/1/98, future service is accrued at 2.2%. Formula in table applies to such service as well as for those members who have upgraded all years of service prior to 7/1/98 by making contributions to upgrade old formula service credit. Maximum number of years upgraded is 20. If member did not upgrade, then service before 7/1/98 is valued according to previous formula (i.e., $[1.67\% \times 1\text{st } 10 \text{ yrs.} + 1.90\% \times 2\text{nd } 10 \text{ yrs} + 2.10\% \times 3\text{rd } 10 \text{ yrs} + 2.30\% \times 30+ \text{ yrs}] \times \text{FAS}$).
- 18** Kansas PERS: If hired prior to 7/1/93, FAS equals greater of 4-year FAS including payments for sick leave and annual leave or a 3-year FAS excluding such payments; if hired after 7/1/93, FAS equals the average of the 3 highest years of service, excluding sick and annual leave payments.
- 19** Kentucky TRS: 3 highest years of service for employees who retire on or after age 55 with 27 or more years of service.
- 20** Kentucky TRS: For new members of KTRS on or after 7/1/02 who have earned less than 10 years of service credit, the formula is: $[2.00\% \times \text{yrs} \times \text{FAS}]$; for new members of KTRS on or after 7/1/02 who retire with 10+ years of service credit, the formula is: $[2.50\% \times \text{yrs} \times \text{FAS}]$, with this higher formula applicable to all years of service including the first ten years of service. For members who retire on or after 7/1/04, the formula multiplier is 3.00% for all years of service in excess of 30 years. For university members, who are covered by Social Security, the formula is $[2.00\% \times \text{yrs} \times \text{FAS}]$.
- 21** Kentucky CERS: For member retiring between 8/1/2001 and 1/1/2009 and whose total service is at least 27 years and whose age and service combine to at least 75, FAS is 3 highest fiscal years of service.
- 22** Kentucky KERS: For member retiring between 8/1/2001 and 1/1/2009 and whose total service is at least 27 years and whose age and service combine to at least 75, FAS is 3 highest fiscal years of service.
- 23** Kentucky KERS: Formula is $2.20\% \times \text{FAS} \times \text{yrs}$, if employed during period 1/98 to 1/99 and retire between 2/99 and 1/2009 with 20+ years of service; formula is $[1.97\% \times \text{yrs} \times \text{FAS}]$ if not employed during period 1/98 to 1/99.
- 24** Louisiana TRSL: Data shown in table are for Teachers' Regular Plan for retirement at age 55 with 25 years of service, or any age with 30 years of service. Teachers' Plan B, for members covered by Social Security, provides for a benefit formula of $2\% \times \text{yrs} \times \text{FAS}$. Teachers' Plan A, for members not covered by Social Security, provides for a benefit formula of $3\% \times \text{yrs} \times \text{FAS}$. Members of Plan A, who did not contribute to retirement until their employing agencies withdrew from Social Security coverage, will receive 1% for those years plus \$24.00 per year for each year that retirement was not paid and 3% for each year after their employing agencies withdrew from Social Security coverage and retirement contributions were paid on the members' salaries. See, also, notes to Table 2. In addition, through the passage of Act 1055 of the 2001 Regular Legislative Session, an Alternative Contribution Plan (ACP) was authorized for TRSL Regular Plan members who have less than five years of service credit and who joined TRSL on or after July 1, 1999, including new employees hired on or after January 1, 2003. This plan is not available to members of TRSL school food service Plan A or Plan B. TRSL members employed in institutions of higher education who are eligible for the current Optional Retirement Plan (ORP) will also be able to choose the ACP. The ACP will be a combined defined benefit (DB)/defined contribution (DC) plan under Section 401(a) of the Internal Revenue Code. This new plan is available as a one-time,

irrevocable, lifetime choice to eligible members. The ACP will have two parts: (1) a TRSL benefit (DB plan) in which the guaranteed monthly benefit is equal to 1.25% times years of service credit times the average of the highest three consecutive years of salary; this benefit is payable at the same age and years of service required of TRSL Regular Plan members; and (2) an ACP account (DC plan); the account funds are invested with one of the three ACP providers to be designated by the TRSL Board of Trustees; this account is funded by contributions of 6% of the ACP member's salary and invested in the mutual funds, bond funds, etc., of the member's choice; ACP members and their employers contribute exactly the same percentage of salary as TRSL Regular Plan members and their employers.

- 25** Louisiana LASERS: Benefits formula in table applies to most state service; however, there are higher contributions and benefits multipliers for certain groups such as judges.
- 26** Massachusetts TRS: A reduction of 0.1% is applied for each year of age under the maximum age for the members' group; for example, the multiplier at the maximum age of 65 is 2.5%, but is 2.0% at age 60 and 1.5% at age 55. Effective 7/2001, members who participate in the Alternative Retirement Benefits program ("Retirement Plus") have his/her pension benefit based on his/her current formula plus an additional bonus of 2% for each year of service in excess of 24 years, provided one has 30 years of creditable service of which 20 years must be as a member of Massachusetts TRS (e.g., plus 2% at 25 years, plus 4% at 26 years); the maximum benefit cannot exceed 80% of a member's FAS.
- 27** Massachusetts SERS: A reduction of 0.1% is applied for each year of age under the maximum age for the members' group; for example, the multiplier at the maximum age of 65 is 2.5%, but is 2.0% at age 60 and 1.5% at age 55. Higher education faculty with less than 10 years SERS service may participate in a an Optional Retirement Plan, a defined contribution alternative for which the employee contribution varies from 7% to 11% depending on date of hire and the employer's contribution is 5%.
- 28** Michigan MSERS: New employees hired on or after 3/31/97 do not participate in MSERS. Instead they participate in a defined contribution plan administered by the state Office of Retirement Services. State employees hired prior to 3/31/97 were also granted the option to withdraw from the defined benefit plan and irrevocably enroll in the new plan. Under the defined contribution plan, the state contributes 4% and will additionally match employee contributions of up to 3%.
- 29** Michigan MERS: Programs in effect and presently available include CN (1.3% x yrs x FAS); C-1N (1.5% x yrs x FAS); B-1 (1.7% x yrs x FAS); B-2 (2.0% x yrs x FAS); B-3 (2.25% x yrs x FAS) with 80% FAS limit; B-4 (2.5% x yrs x FAS) with 80% FAS limit; and C-2 (2.0% x yrs x FAS), payable to attainment of the age at which unreduced Social Security benefits are available, when the benefit reverts to the basic benefit (i.e., B-1).
- 30** Missouri PSRS: Applicable factor is 2.55% for employees retiring with 31+ years of service between 7/1/2001 and 7/1/2008.
- 31** Missouri NTRS: If member qualifies for Rule of 80 or A/30 normal retirement but is under age 62, then an additional factor of 0.8% added as temporary benefit to base factor until such member becomes age 62 (i.e., factor becomes 2.41% for such period).
- 32** Missouri MOSERS: Data in table are for new plan (MSEP 2000). Additional benefit to age 62 of (0.8% x yrs x FAS) if employee retires under Rule of 80 prior to age 62. Closed plan (MSEP) formula is [1.6% x yrs x FAS].
- 33** Montana PERS: Data in table are for traditional defined benefit (DB) plan. Effective 7/1/02, an optional defined contribution (DC) plan available. Currently active and new members given the opportunity to choose membership in either the DB plan or the DC plan; all active members have 12 month period to make the choice which is then irrevocable. Employee contributes 6.9% into DC plan and employer contributes 4.19% into employee's DC account; employer also contributes 2.37% to the defined benefit plan choice rate per DC plan participant, 0.04% to the defined contribution education fund, and 0.03% to the long-term disability plan.
- 34** Nebraska SERS: In addition to defined contribution money purchase plan, a cash balance plan option enacted in 2002. In the cash balance plan option, member accounts accrue a statutorily set rate of return (called the interest credit rate) which the state must pay at retirement or termination; currently the interest credit rate is set at the "applicable federal mid-term rate" published by the IRS plus an additional 1.5%; the interest credit rate has a 5% floor below which the rate may not fall.

- 35** New Hampshire NHRS (Group 1): For FAS calculation purposes, earnable compensation paid to a member for the 12 months preceding retirement is limited to 150% times the higher of either the previous 12 months' compensation or the compensation for the highest year used in calculating FAS excluding the final 12 months.
- 36** New Mexico PERA: Data in table are for Coverage Plan 3, state general members.
- 37** New York TRS: Benefit formula in table is for Tier 4 employees who became members on or after 9/1/83; for such Tier 4 members who retire with less than 20 years of service, the benefit formula is $1.67\% \times \text{yrs} \times \text{FAS}$. For Tier 3 members (7/27/76-8/31/83) the benefit formula is $2\% \times \text{yrs} \times \text{FAS}$ if credited with 20 or more years of service to a maximum of 60% with 30 or more years; for Tier 3 members who retire with less than 20 years of service, the benefit formula is $1.67\% \times \text{yrs} \times \text{FAS}$. Certain Tier 3 members' benefits reduced at age 62 by 50% of the primary Social Security benefit accrued while in NYS public employment.
- 38** New York ERS: Benefits formula in table is for Tier 4 employees who became members after 9/1/83; for such Tier 4 members who retire with less than 20 years of service, the benefits formula is $1.67\% \times \text{yrs} \times \text{FAS}$.
- 39** NY-New York City TRS: Benefits formula in table is for Tier 4 employees who became members after 9/1/83; for such Tier 4 members who retire with less than 30 years of service but more than 20 years of service, the benefits formula is $2.00\% \times \text{yrs} \times \text{FAS}$; for such Tier 4 members who retire with less than 20 years of service, the benefits formula is $1.67\% \times \text{yrs} \times \text{FAS}$.
- 40** Ohio STRS: Data in table is for defined benefit plan alternative with 30 years of service; for more than 30 years service, each year over 30 years is incremented by 0.1%, starting at 2.5% for the 31st year of service (e.g., the 32nd year of service would be $2.6\% \times \text{FAS} \times \text{year } 32$); for teachers with more than 35 years of service, the first 30 years will be calculated at 2.5% and each year over 31 is incrementally increased by 0.1% starting at 2.6% for the 32nd year of service. Alternative Money Purchase Optional benefit paid if the annuitized value of the accumulated contributions produces a greater monthly benefit than the formula shown in the table. In addition, two other plans available: (1) the STRS Ohio Combined Plan (a hybrid plan with a defined benefit account based on an employer contribution that yields a 1% of FAS per year of service benefit and a defined contribution account based on the employee's contribution which yields a benefit that reflects the value of the member's account at retirement), and (2) the STRS Ohio Defined Contribution Plan (both employer and employee contributions fund the account balance which, at retirement, yields the value achieved by member investment of monies in the account).
- 41** Ohio PERS: Data in table is for defined benefit plan alternative. In addition, two other plans available to new members hired on or after January 1, 2003, as well as members with less than five years of service credit as of year-end 2002: (1) the PERS Ohio Combined Plan (a hybrid plan with a defined benefit account based on an employer contribution that yields a 1% of FAS per year of service benefit after 30 years (or 1.25% after 35 years) and a defined contribution account based on the employee's contribution which yields a benefit that reflects the value of the member's account at retirement), and (2) the PERS Ohio Defined Contribution Plan (both employer and employee contributions fund the account balance which, at retirement, yields the value achieved by member investment of monies in the account).
- 42** Oklahoma TRS: For members who joined TRS before 6/30/92, FAS is defined as the highest 3 years of salary during service.
- 43** Pennsylvania PSERS: Increased benefit multiplier of 2.50% (previously 2.00%) is for all new members after July 1, 2001 and prior active members who elected to participate by December 31, 2001 and who pay a 1.25% additional contribution rate. See notes to Table 4.
- 44** Pennsylvania PSERS: Benefits capped at the lower of 100% of salary for the highest 12 consecutive months or IRS Section 415 limits.
- 45** Pennsylvania SERS: Increased benefit multiplier of 2.50% (previously 2.00%) is for all new members after July 1, 2001 and prior active members who elected to participate by December 31, 2001 (most members so elected) and who pay a 1.25% additional contribution rate. See notes to Table 4.
- 46** Pennsylvania SERS: Benefits capped at the lower of 100% of salary for the highest 12 consecutive months or IRS Section 415 limits.

- 47** Rhode Island MERS: Optional 20-year service plan available with $2.5\% \times \text{FAS} \times \text{yrs}$ to a maximum benefit of 75% FAS.
- 48** South Carolina SCRS: Optional defined contribution plan available to public school district employees hired after 6/30/01, full-time higher education employees hired after 6/30/02 and full-time state employees hired after 6/30/02. Employee contribution is same as for defined benefit plan (6.0%); employers contribute 7.55% of which 5% is directed to the investment provider for allocation to the employee's account and the remaining 2.55% is retained by SCRS to cover the unfunded accrued liability of SCRS.
- 49** South Dakota SDRS: Formula in table is Standard Formula for Class A members not integrated with Social Security.
- 50** Tennessee CRS: These benefits are increased by 5% for state employees, teachers, and employees of participating political subdivisions that have authorized the 5% benefit improvement, so that the benefits formula with the improvement is $1.575\% \times \text{yrs} \times \text{FAS}$ up to the Social Security Integration Level plus $1.8375\% \times \text{yrs} \times \text{FAS}$ above the Social Security Integration Level.
- 51** Utah SRS: Data in table refer to noncontributory system only.
- 52** Vermont MERS: $1.4\% \times \text{yrs} \times \text{FAS}$ for service after 7/1/87 plus $1.1\% \times \text{yrs} \times \text{FAS}$ for service between 7/1/75 and 7/1/87 plus $1.0\% \times \text{yrs} \times \text{FAS}$ for service before 7/1/75.
- 53** Vermont MERS: Benefit equals the sum of the applicable percentages of FAS earned while a Group A member, if any, multiplied by final 3-year average compensation, plus 1.7% of FAS for each year of service as a Group B member.
- 54** Vermont MERS: Benefit equals the sum of the applicable percentages of FAS earned while a Group A or a Group B member, if any, multiplied by final three-year average compensation, plus 2.5% of FAS for each year of service as a Group C or D member. Benefit levels for Group D member (restricted to police officers, firefighters and emergency medical technicians) are greater those for than Group C members only insofar as the Group D member's plan offers greater children's benefits if a member is disabled or dies while employed.
- 55** Wisconsin WRS: WRS is a hybrid plan with both defined benefit and defined contribution accounts; although structured as a defined benefit plan, separate individual accounts for all participants are also maintained. Because of the hybrid design, a participant's retirement benefit is calculated based on the defined benefit formula in the Table above and it is also calculated as a money purchase benefit (based on the value accumulated in the participant account at the time of retirement and matched equally with an amount from the employer reserve); the retirement annuity a participant receives results from the calculation that provides the greatest benefit. At the time such retirement benefit begins, the amount that is necessary to fund the lifetime benefit is transferred from the employee and employer reserve into the annuity reserve.

TABLE 6.
INVESTMENT ALLOCATION AND RATE OF RETURN ON INVESTMENT

| ASSET ALLOCATION | | | | | | | | | | | |
|--------------------------------|-------------------------------------|--------------------|-----------------|---------------------------------------|-----------------|----------------|----------------|---------------------------------|----------------|-------------------------------------------|----------|
| State/Fund | ASSETS (\$Billions at Market) | Domestic Stocks | Int'l Stocks | Money Mkt., Other Short-term | Fixed Income | Mort- gages | Real Estate | Alter- native Investments | Other | 12 Month Combined Rate of Return | As of: |
| Alabama/TRS | \$13.9 | 34.73% | 7.30% | 7.10% | 42.15% | 2.26% | 6.46% | ----- | ----- | (7.81%) | 9/30/02 |
| Alabama/ERS | \$6.3 | 39.10% | 7.39% | 3.13% | 41.65% | 1.90% | 6.83% | ----- | ----- | (9.29%) | 9/30/02 |
| Alaska/TRS | \$3.7 | 38.23% | 17.48% | ----- | 35.70% | ----- | 7.84% | 0.85% | ----- | (5.49%) | 6/30/02 |
| Alaska/PERS | \$7.4 | 38.24% | 17.44% | ----- | 35.54% | ----- | 7.83% | 0.85% | ----- | (5.48%) | 6/30/02 |
| Arizona/ASRS | \$19.2 | 51.43% | 16.20% | 3.26% | 28.96% | ----- | 0.16% | ----- | ----- | (8.20%) | 6/30/02 |
| Arkansas/ATRS | \$7.0 | 39.50% | 12.70% | 0.60% | 26.90% | 7.10% | 7.00% | ----- | 6.20% | (6.20%) | 6/30/02 |
| Arkansas/PERS | \$3.7 | 40.10% | 9.50% | 0.30% | 43.50% | ----- | ----- | 6.60% | ----- | (5.74%) | 6/30/02 |
| California/STRS | \$96.7 | 39.18% | 21.95% | 1.28% | 27.99% | ----- | 5.21% | 4.40% | ----- | (5.95%) | 6/30/02 |
| California/PERS | \$141.8 | 37.92% | 18.64% | 1.88% | 28.25% | ----- | 8.64% | 4.67% | ----- | (6.10%) | 6/30/02 |
| California/UCRS | \$34.5 | 51.11% | 9.50% | 1.40% | 36.50% | ----- | ----- | 1.490% | ----- | (9.20%) | 6/30/02 |
| Colorado/PERA | \$23.6 | 47.80% | 13.20% | 2.70% | 12.80% | ----- | 11.20% | 11.10% | 1.20% | (11.80%) | 12/31/02 |
| CO-Denver/DPSRS | \$2.2 | 24.80% | 13.00% | 5.40% | 24.40% | 15.90% | 12.30% | 4.20% | ----- | (5.15%) | 12/31/02 |
| Connecticut/TRS 1 | \$10.1 | 36.08% | 12.03% | 2.23% | 34.39% | 0.40% | 2.54% | 12.33% | ----- | (6.58%) | 6/30/02 |
| Connecticut/SERS 1 | \$7.1 | 36.60% | 12.10% | 2.06% | 34.92% | 0.40% | 2.56% | 12.36% | ----- | (6.62%) | 6/30/02 |
| Connecticut/ CMERS 1 | \$1.2 | 35.26% | 11.11% | 4.85% | 34.13% | 0.37% | 2.40% | 11.87% | ----- | (6.41%) | 6/30/02 |
| Delaware/SEPP | \$4.9 | 48.20% | 11.90% | 1.90% | 28.10% | ----- | ----- | 9.90% | ----- | (6.30%) | 6/30/02 |
| Florida/FRS | \$89.5 | 50.90% | 12.80% | 1.10% | 26.30% | ----- | 4.30% | 3.30% | 1.30% 2 | (8.10%) | 6/30/02 |
| Georgia/TRS | \$39.52 | 52.00% | 4.80% | 1.10% | 42.10% | ----- | ----- | ----- | ----- | (5.08%) | 6/30/01 |
| Georgia/ERS 3 | \$11.5 | 54.10% 4 | ---- 4 | 1.80% 5 | 44.10% | ----- | ----- | ----- | ----- | (4.00%) | 6/30/02 |
| Georgia/PSERS 3 | \$0.7 | 54.10% 4 | ---- 4 | 1.80% 5 | 44.10% | ----- | ----- | ----- | ----- | (4.00%) | 6/30/02 |
| Hawaii/ERS | \$8.0 | 42.00% | 15.00% | ----- | 32.00% | ----- | 8.00% | 3.00% | ----- | (5.52%) | 6/30/02 |
| Idaho/PERS | \$6.3 | 37.80% | 26.00% | 2.90% | 25.70% | 4.90% | 0.50% | 2.20% | ----- | (7.10%) | 6/30/02 |
| Illinois/TRS | \$23.2 | 34.70% | 14.90% | 2.80% | 35.00% | ----- | 9.90% | 2.70% | ----- | (3.20%) | 6/30/02 |
| Illinois/IMRF | \$13.9 | 38.90% | 11.80% | 3.40% | 38.30% | ----- | 4.20% | 3.40% | ----- | (8.72%) | 12/31/02 |
| Illinois/SERS | \$7.9 | 45.08% | 15.53% | 4.35% | 24.58% | ----- | 5.26% | 5.24% | ----- | (6.90%) | 6/30/02 |
| Illinois/SURS | \$9.8 | 39.00% | 19.00% | ----- | 31.00% | ----- | 3.00% | 3.00% | 5.00% | (6.10%) | 6/30/02 |
| IL-Chicago/PSTPRF | \$9.4 | 44.90% | 10.60% | 3.60% | 31.80% | ----- | 8.50% | 0.90% | ----- | (3.28%) | 6/30/02 |

TABLE 6.
INVESTMENT ALLOCATION AND RATE OF RETURN ON INVESTMENT (Continued)

| ASSET ALLOCATION | | | | | | | | | | | |
|--------------------------|-------------------------------------|--------------------|-----------------|---------------------------------------|-----------------|----------------|----------------|---------------------------------|----------------|-------------------------------------------|----------|
| State/Fund | ASSETS (\$Billions at Market) | Domestic Stocks | Int'l Stocks | Money Mkt., Other Short-term | Fixed Income | Mort- gages | Real Estate | Alter- native Investments | Other | 12 Month Combined Rate of Return | As of: |
| Indiana/TRF | \$5.7 | 34.71% | 10.17% | ----- | 55.06% | ----- | ----- | 0.07% | ----- | (2.38%) | 6/30/02 |
| Indiana/PERF | \$9.2 6 | 47.00% | 10.90% | 2.50% | 39.60% | ----- | ----- | ----- | ----- | (4.50%) | 6/30/02 |
| Iowa/PERS | \$14.9 | 26.60% | 15.60% | 0.30% | 40.40% | ----- | 6.40% | 6.40% | 5.00% 7 | (4.94%) | 6/30/02 |
| Kansas/PERS | \$9.3 | 30.45% | 15.59% | 3.76% | 37.59% | ----- | 7.42% | 5.19% | ----- | (4.70%) | 6/30/02 |
| Kentucky/TRS | \$12.5 | 52.81% | ----- | 7.94% | 35.10% | ----- | 3.15% | ----- | ----- | (0.70%) | 6/30/01 |
| Kentucky/CERS | \$5.2 | 36.00% | 13.00% | 5.00% | 34.00% | 6.00% | ----- | 5.00% | ----- | (4.28%) | 6/30/02 |
| Kentucky/KERS | \$5.2 | 37.00% | 12.00% | 5.00% | 34.00% | 6.00% | ----- | 5.00% | ----- | (4.28%) | 6/30/02 |
| Louisiana/TRSL | \$10.5 | 43.64% | 10.23% | 4.74% | 22.59% | ----- | 3.63% | 15.33% | ----- | (7.60%) | 6/30/02 |
| Louisiana/LASERS | \$5.5 | 42.00% | 15.00% | ----- | 36.00% | ----- | ----- | ----- | 7.00% | (5.63%) | 6/30/02 |
| Maine/MSRS | \$6.6 | 47.70% | 13.60% | 0.10% | 38.60% | ----- | ----- | ----- | ----- | (7.50%) | 6/30/02 |
| Maryland/SRPS 8 | \$26.5 | 44.70% | 17.80% | 2.30% | 29.20% | ----- | 5.70% | 0.30% | ----- | (7.60%) | 6/30/02 |
| Massachusetts/TRS | \$13.5 | 39.10% | 16.50% | ----- | 28.70% | ----- | 6.30% | 5.50% | 3.80% | (6.49%) | 6/30/02 |
| Massachusetts/SERS | \$13.0 | 39.10% | 16.50% | ----- | 28.70% | ----- | 6.30% | 5.50% | 3.80% | (6.49%) | 6/30/02 |
| Michigan/MPERS | \$30.0 | 42.00% | 7.50% | 2.80% | 23.60% | ----- | 9.80% | 14.30% | ----- | (10.50%) | 9/30/02 |
| Michigan/MSERS | \$8.2 | 41.20% | 7.50% | 1.90% | 24.20% | ----- | 10.50% | 14.70% | ----- | (10.30%) | 9/30/02 |
| Michigan/MERS | \$3.3 | 44.00% | 12.00% | 0.70% | 37.80% | ----- | 5.20% | 0.30% | ----- | (8.60%) | 12/31/02 |
| Minnesota/TRA 9 | | | | | | | | | | | |
| Basic Fund | \$6.3 | 46.20% | 16.10% | 0.20% | 24.20% | ----- | ----- | 13.30% | ----- | (8.20%) | 6/30/02 |
| Post Retirement | \$7.7 | 49.40% | 15.70% | 0.90% | 30.00% | ----- | ----- | 4.00% | ----- | (7.80%) | 6/30/02 |
| Minnesota/PERF 9 | | | | | | | | | | | |
| Basic Fund | \$4.1 | 46.20% | 16.10% | 0.20% | 24.20% | ----- | ----- | 13.30% | ----- | (8.20%) | 6/30/02 |
| Post Retirement | \$4.7 | 49.40% | 15.70% | 0.90% | 30.00% | ----- | ----- | 4.00% | ----- | (7.80%) | 6/30/02 |
| Minnesota/SERF 9 | | | | | | | | | | | |
| Basic Fund | \$3.8 | 46.20% | 16.10% | 0.20% | 24.20% | ----- | ----- | 13.30% | ----- | (8.20%) | 6/30/02 |
| Post Retirement | \$2.4 | 49.40% | 15.70% | 0.90% | 30.00% | ----- | ----- | 4.00% | ----- | (7.80%) | 6/30/02 |
| MN-Minneapolis/ MTRFA | \$0.8 | 52.20% | 15.30% | 2.2% | 29.00% | ----- | ----- | 1.30% | ----- | (11.16%) | 6/30/02 |
| MN-St. Paul/SPTRFA | \$0.8 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | (3.70%) | 6/30/02 |
| Mississippi/PERS | \$14.2 | 45.30% | 16.00% | 0.60% | 38.10% | ----- | ----- | ----- | ----- | (6.60%) | 6/30/02 |

TABLE 6.
INVESTMENT ALLOCATION AND RATE OF RETURN ON INVESTMENT (Continued)

| ASSET ALLOCATION | | | | | | | | | | | |
|------------------------------------|-------------------------------------|--------------------|-----------------|---------------------------------------|-----------------|----------------|----------------|---------------------------------|-------|-------------------------------------------|----------|
| State/Fund | ASSETS (\$Billions at Market) | Domestic Stocks | Int'l Stocks | Money Mkt., Other Short-term | Fixed Income | Mort- gages | Real Estate | Alter- native Investments | Other | 12 Month Combined Rate of Return | As of: |
| Missouri/PSRS | \$19.3 | 34.60% | 14.00% | 2.60% | 43.50% | ----- | ----- | ----- | 5.30% | 10 (2.80%) | 6/30/02 |
| Missouri/NTRS | \$1.6 | 34.60% | 14.00% | 2.60% | 43.50% | ----- | ----- | ----- | 5.30% | 10 (2.80%) | 6/30/02 |
| MO-St. Louis/ PSRS of St. Louis | \$0.8 | 41.70% | 9.6% | 5.60% | 37.60% | ----- | 1.70% | 2.80% | ----- | (5.90%) | 12/31/02 |
| Missouri/MOSERS | \$5.1 | 46.90% | 24.70% | ----- | 25.75% | ----- | ----- | ----- | 2.85% | (6.20%) | 6/30/02 |
| Montana/TRS | \$2.0 | 44.90% | 8.50% | 2.00% | 33.10% | 7.50% | 0.30% | 3.70% | ----- | (7.20%) | 6/30/02 |
| Montana/PERS | \$2.6 | 41.00% | 8.40% | 2.60% | 33.50% | 7.00% | 0.3% | 3.70% | ----- | (7.23%) | 6/30/02 |
| Nebraska/SRS | \$4.0 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | (6.10%) | 6/30/02 |
| Nebraska/SERS 11 | \$0.22 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| NE-Omaha/OSERS | \$0.6 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | (11.16%) | 9/01/02 |
| Nevada/PERS | \$13.7 | 30.28% | 9.92% | 2.59% | 47.63% | 0.01% | 8.60% | 0.97% | ----- | (2.70%) | 6/30/02 |
| New Hampshire/ NHRS | \$3.9 12 | 44.70% | 8.20% | ----- | 29.50% | ----- | 7.70% | 9.90% | ----- | (6.40%) | 6/30/02 |
| New Jersey/TPAF | \$26.7 | 45.40% | 15.60% | 5.00% | 29.20% | 4.80% | ----- | ----- | ----- | (9.00%) | 6/30/02 |
| New Jersey/PERS | \$20.8 | 45.40% | 15.6% | 5.00% | 29.20% | 4.80% | ----- | ----- | ----- | (9.00%) | 6/30/02 |
| New Mexico/ERB | \$5.7 | 51.00% | 17.00% | ----- | 32.00% | ----- | ----- | ----- | ----- | (8.73%) | 6/30/02 |
| New Mexico/PERA | \$7.9 | 36.15% | 15.18% | 5.32% | 43.15% | ----- | 0.20% | ----- | ----- | (2.07%) | 6/30/02 |
| New York/TRS | \$81.0 | 53.60% | 8.05% | 3.51% | 22.43% | 5.77% | 4.82% | 1.82% | ----- | (6.80%) | 6/30/02 |
| New York/ERS 13 | \$111.9 | 47.90% | 11.70% | ----- | 31.30% | ----- | 3.30% | 5.80% | ----- | 2.76% | 3/31/02 |
| NY-New York City/ TRS | \$24.3 14 | 46.60% | 14.70% | ----- | 18.10% | 15.40% | ----- | ----- | 5.20% | (8.05%) | 6/30/02 |
| North Carolina/ TSERS | \$42.0 | 48.14% | ----- | 0.17% | 47.91% | ----- | 3.10% | 0.68% | ----- | (4.64%) | 12/31/02 |
| North Carolina/ LGERS | \$10.9 | 48.14% (4.64%) | ----- | 4.52% | 0.17% | 47.91% | ----- | 3.10% | 0.68% | ----- | 12/31/02 |
| North Dakota/TFRR | \$1.2 | 40.00% | 26.00% | 2.00% | 20.00% | ----- | 9.00% | 3.00% | ----- | (8.88%) | 6/30/02 |
| North Dakota/PERS | \$1.1 | 36.40% | 13.10% | 0.70% | 41.70% | ----- | 5.20% | 2.90% | ----- | (6.83%) | 6/30/02 |
| Ohio/STRS | \$47.7 | 44.90% | 21.40% | 0.90% | 18.70% | ----- | 12.20% | 1.90% | ----- | (8.13%) | 6/30/02 |
| Ohio/PERS | \$47.5 | 46.550% | 20.020% | 1.92% | 21.210% | ----- | 9.77% | 0.50% | ----- | (10.74%) | 12/31/02 |
| Ohio /SERS | \$7.6 | 43.40% | 16.70% | 0.30% | 28.00% | ----- | 10.40% | 1.20% | ----- | (7.80%) | 6/30/02 |

TABLE 6.
INVESTMENT ALLOCATION AND RATE OF RETURN ON INVESTMENT (Continued)

| ASSET ALLOCATION | | | | | | | | | | | |
|----------------------------------|-------------------------------------|--------------------|-----------------|---------------------------------------|-----------------|----------------|----------------|---------------------------------|-------|-------------------------------------------|----------|
| State/Fund | ASSETS (\$Billions at Market) | Domestic Stocks | Int'l Stocks | Money Mkt., Other Short-term | Fixed Income | Mort- gages | Real Estate | Alter- native Investments | Other | 12 Month Combined Rate of Return | As of: |
| Oklahoma/TRS | \$5.7 | 45.30% | 12.80% | 5.10% | 36.80% | ----- | ----- | ----- | ----- | (5.40%) | 6/30/02 |
| Oklahoma/PERS | \$4.5 | 42.90% | 13.00% | 0.60% | 43.50% | ----- | ----- | ----- | ----- | (5.10%) | 6/30/02 |
| Oregon/PERS | \$34.9 | 34.20% | 16.40% | 6.20% | 28.70% | ----- | 4.80% | 9.70% | ----- | (6.30%) | 6/30/02 |
| Pennsylvania/PSERS | \$44.4 | 39.70% | 17.20% | 2.40% | 28.80% | ----- | 5.30% | 6.60% | ----- | (5.25%) | 6/30/02 |
| Pennsylvania/SERS | \$20.9 | 35.40% | 19.20% | 0.50% | 20.00% | ----- | 11.60% | 11.70% | 1.60% | (10.90%) | 12/31/02 |
| Pennsylvania/PMRS | \$1.0 | 50.00% | 15.00% | ----- | 25.00% | ----- | 10.00% | ----- | ----- | (3.70%) | 12/31/01 |
| Rhode Island/ ERSRI 16 | \$4.7 | 44.50% | 20.40% | ----- | 29.60% | ----- | ----- | 5.50% | ----- | (8.30%) | 6/30/02 |
| Rhode Island/ MERS 16 | \$0.7 | 44.50% | 20.40% | ----- | 29.60% | ----- | ----- | 5.50% | ----- | (8.30%) | 6/30/02 |
| South Carolina/SCRS | \$18.5 | 26.81% | ----- | 13.71% | 57.48% | ----- | ----- | ----- | ----- | 0.93% | 6/30/02 |
| South Dakota/SDRS | \$4.6 | 41.00% | 18.10% | 1.1% | 25.00% | ----- | 6.40% | ----- | 8.4% | (4.90%) | 6/30/02 |
| Tennessee/CRS | \$23.0 | 30.67% | 9.91% | 7.88% | 50.00% | ----- | 1.54% | ----- | ----- | (1.92%) | 6/30/02 |
| Texas/TRS | \$71.3 | 53.2.00% | 11.20% | 0.90% | 30.20 | ----- | ----- | 4.50% | ----- | (7.80%) | 6/30/02 |
| Texas/ERS | \$17.0 | 40.14% | 17.13% | 0.04% | 42.69% | ----- | ----- | ----- | ----- | (7.17.%) | 7/31/02 |
| Utah/SRS | \$11.7 | 37.50% | 16.94% | 6.50% | 22.97% | 0.03% | 9.57% | 6.49% | ----- | (7.54%) | 12/31/02 |
| Vermont/STRS | \$1.1 | 41.00% | 17.00% | ----- | 31.00% | ----- | 10.00% | ----- | 1.00% | (6.10%) | 6/30/02 |
| Vermont/MERS | \$0.2 | 38.00% | 19.00% | ----- | 33.00% | ----- | 7.00% | ----- | 3.00% | (0.20%) | 6/30/02 |
| Vermont/VSRS | \$1.0 | 41.00% | 17.00% | ----- | 31.00% | ----- | 9.00% | ----- | 2.00% | (7.40%) | 6/30/02 |
| Virginia/VRS | \$34.1 | 44.00% | 15.70% | ----- | 27.00% | ----- | ----- | 13.00% 17 | ----- | (7.40%) | 6/30/02 |
| Washington/TRS 18 | \$39.0 | 33.30% | 15.00% | 1.30% | 28.00% | ----- | 9.20% | 13.20% | ----- | (6.40%) | 6/30/02 |
| Washington/PERS 18 | \$39.0 | 33.30% | 15.00% | 1.30% | 28.00% | ----- | 9.20% | 13.20% | ----- | (6.40%) | 6/30/02 |
| Washington/SERS 18 | \$39.0 | 33.30% | 15.00% | 1.30% | 28.00% | ----- | 9.20% | 13.20% | ----- | (6.40%) | 6/30/02 |
| West Virginia/TRS | \$1.1 | 42.00% | 15.00% | 7.00% | 36.00% | ----- | ----- | ----- | ----- | (3.00%) | 6/30/02 |
| West Virginia/ TDC 19 | \$0.4 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 6/30/02 |
| West Virginia/PERS | \$2.6 | 43.00% | 16.00% | 1.00% | 40.00% | ----- | ----- | ----- | ----- | (2.90%) | 6/30/02 |
| Wisconsin/WRS | \$49.3 20 | 39.00% | 18.00% | 2.00% | 24.00% | ----- | 4.00% | 13.00% | ----- | (4.80%) | 6/30/02 |
| Wyoming/WRS | \$4.1 | 42.10% | 12.20% | 1.50% | 44.20% | ----- | ----- | ----- | ----- | (9.29%) | 12/31/02 |

Table 6.
Footnotes

- 1** Connecticut TRS, SERS and CMERS: Asset allocations shown in table are based on each pension funds' portion of the combined fund managed by the state treasurer as the sole fiduciary for six state pension and eight state trust funds. There are seven combined investment funds operated as a series of mutual funds in which the pension trust funds may invest through the purchase of ownership interests.
- 2** Florida FRS: Defined contribution plan transitional assets.
- 3** Georgia ERS and PSERS: Participate in pooled investment fund.
- 4** Georgia ERS and PSERS: Combined domestic and international equity.
- 5** Georgia ERS and PSERS: Short-term securities includes mortgages and real estate.
- 6** Indiana PERS: Data in table is for Consolidated Retirement Investment Fund (CRIF). Six smaller retirement funds and PERF pool assets in the CRIF. At 6/30/02, PERF's share of the CRIF accounted for \$7.5 billion or 81.9% of the total fund.
- 7** Iowa PERS: "Tactical Fund" used to make tactical short-term shifts between equities, fixed income, and cash to take advantage of underpriced and/or overpriced markets.
- 8** Maryland SRPS: Includes Maryland TRS, TPS, ERS, and EPS plans.
- 9** Minnesota TRA, PERF, and SERF: The assets of the TRA, PERF and SERF are invested by the State Board of Investments in two funds, the Basic Retirement Fund and the Post Retirement Fund.
- 10** Missouri PSRS/NTRS: "Real Return Pool" which can invest in Treasury Inflation Protected Securities or Real Estate Investment Trusts; 100% of this pool was invested in TIPS at 6/30/02.
- 11** Nebraska SERS: Data in table is for the state employees new cash balance plan as of 1/1/2003. For the defined contribution plan option, member contributions are employee directed; employer matching contributions are employee directed to a choice of 3 funds ("conservative", "moderate" or "aggressive"); for the period ending 12/31/02, the 1-year rates of return for these employer matching contributions' funds were (-1.27%), (-6.90%) and (-14.12%) respectively.
- 12** New Hampshire NHRS: Pooled assets for Pension Plan and Post Retirement Medical Plan.
- 13** New York ERS: Data in table are for New York State Common Retirement Fund, which includes the assets of the following systems: New York State and Local Retirement System (ERS), the New York State and Local Police and Fire Retirement System (PFRS), and the Public Employees Group Life Insurance Plan (GLIP).
- 14** New York City-NY TRS: Data in table is for Pension Fund; there is also a Variable "A" Fund with total investments of \$6.6 billion and a rate of return of -14.44 for FY2002 and a Variable "B" Fund with total investments of \$0.4 billion and a rate of return of +5.16% for FY2002.
- 15** Pennsylvania SERS: 1.6% in commodities.
- 16** Rhode Island ERSRI and MERS: The assets of the Rhode Island ERSRI and MERS funds are pooled together with the assets of the State Police Retirement Benefits Trust (SPBRT) and the Judicial Retirement Benefits Trust (JRBT) by the State Investment Commission for investment purposes only. The combined fund asset allocations are shown in these tables.
- 17** Virginia VRS: Alternative investments include real estate, private equity and high-yield bonds.
- 18** Washington TRS, PERS and SERS: The assets of the state defined benefit retirement funds are pooled and invested by the State Board of Investments. The combined fund assets and asset allocations are shown in these tables.
- 19** West Virginia TDC: Asset allocation directed by the employee.

20 Wisconsin WRS: Data in table is for the Fixed (or balanced) Fund, the larger of the two WRS trust funds. At 6/30/02, the smaller Variable Fund had \$5.5 billion in assets with 78% invested in domestic stocks, 20% in international equities and 2% in cash or other short-term equivalents. The 1-year return on the variable fund for the period ending 6/30/02 was (-14.7%).

**TABLE 7.
ACTUARIAL METHODS AND FUNDING**

| State/Fund | Valuation Date | Actuarial Method | Funded Ratio | UAAL as % of Covered Payroll | Assumed Inflation | Salary Growth Assumed | Interest Rate Assumed | Asset Valuation Method | Amortization Period (in years) |
|------------------------------|----------------|-----------------------|---------------------|------------------------------|-------------------|-----------------------|-----------------------|----------------------------------|--------------------------------|
| Alabama/TRS | Jun-02 | Entry Age Normal | 97.40% | 10.7% | 4.50% | 5.00%-7.75% | 8.00% | MKT, 5-yr smoothing | 10 |
| Alabama/ERS | Sep-01 | Entry Age Normal | 100.20% | (0.80%) | 4.50% | 4.61%-7.75% | 8.00% | MKT, 5-yr smoothing | -- ¹ |
| Alaska/TRS | Jun-02 | Projected Unit Credit | 68.20% ² | 338.1% | 3.50% | 5.50% | 8.25% | MKT, 5-yr smoothing ³ | 25 |
| Alaska/PERS | Jun-02 | Projected Unit Credit | 75.20% ⁴ | 237.7% | 3.50% | 4.00%-6.00% | 8.25% | MKT, 5-yr smoothing ⁵ | 25 |
| Arizona/ASRS | Jun-02 | Projected Unit Credit | 106.40% | ----- | 4.25% | 4.50%-9.50% | 8.00% | MKT, 5-yr smoothing | --- |
| Arkansas/ATRS | Jun-02 | Entry Age Normal | 91.90% | 45.10% | 4.00% | 4.00%-10.10% | 8.00% | MKT, 4-yr smoothing | 38 |
| Arkansas/PERS | Jun-02 | Entry Age Normal | 100.00% | (0.50%) | 4.50% | 5.00%-9.00% | 8.00% | MKT, 4-yr smoothing | 30 |
| California/STRS ⁶ | Jun-01 | Entry Age Normal | 98.00% | 11.00% | 3.50% | 4.25% | 8.00% | MKT, 3-yr smoothing | 29 |
| California/PERS ⁷ | Jun-01 | Entry Age Normal | 111.87% | (57.48%) | 3.50% | ----- ⁸ | 8.25% | MKT, modified 3 yr smoothing | -- ⁹ |
| California/UCRS | Jun-02 | Entry Age Normal | 138.40% | (159.80%) | 4.00% | 4.50%-6.50% | 7.50% | MKT, 5-yr smoothing | 13.25 |
| Colorado/PERA ¹⁰ | Dec-02 | Entry Age Normal | 87.90% | 74.10% | 4.50% | 4.50%-10.00% | 8.75% | MKT, 4-yr smoothing | ---- |
| CO-Denver/DPSRS | Jan-03 | Entry Age Normal | 91.00% | 75.0% | 4.00% | 4.60%-9.70% | 8.75% | MKT, 5-yr smoothing | 30 |
| Connecticut/TRS | Jun-02 | Entry Age Normal | 75.90% | 122.000% | 4.00% | 4.00%-8.00% | 8.50% | MKT, 4-yr smoothing | 10-29 |
| Connecticut/SERS | Jun-02 | Projected Unit Credit | 61.60% | 172.20% | 5.00% | 4.25%-15.00% | 8.50% | MKT, 5-yr smoothing | 30 |
| Connecticut/CMERS | Jul-01 | Entry Age Normal | 109.30% | (37.00%) | 3.75% | 4.50%-11.25% | 8.50% | MKT, 5-yr smoothing | 10-25 |
| Delaware/SEPP | Jun-02 | Entry Age Normal | 109.60% | (32.20%) | 5.00% | 6.00%-9.89% | 8.50% | MKT, 5-yr smoothing | 13.95 |
| Florida/FRS | Jul-01 | Entry Age Normal | 117.93% | (68.00%) | 3.50% | 6.25% | 8.00% | MKT, 5-yr smoothing | 30 |
| Georgia/TRS | Jun-01 | Entry Age Normal | 103.90% | (19.60%) | 3.75% | 3.50%-7.75% | 7.25% | MKT, 5-yr smoothing | 40 |
| Georgia/ERS | Jun-01 | Entry Age Normal | 101.70% | (8.10%) | 3.50% | 5.20%-9.00% | 7.00% | MKT, 5-yr smoothing | 20 |
| Georgia/PSERS | Jun-01 | Entry Age Normal | 115.50% | ----- | 3.50% | ----- | 7.00% | MKT, 5-yr smoothing | 40 |
| Hawaii/ERS ¹¹ | Jun-02 | Entry Age Normal | 84.00% | 67.20% | 4.00% | 4.00% | 8.00% | MKT, 4-yr smoothing | 27 |
| Idaho/PERS | Jul-02 | Entry Age Normal | 84.90% | 52.50% | 4.75% | 5.50%-11.80% | 8.00% | MKT | 25 |
| Illinois/TRS Unit Credit | Jun-02 | Projected | 52.00% | 304.80% | 3.50% | 5.90%-10.10% | 8.50% | MKT | 40 ¹² |
| Illinois/IMRF | Dec-02 | Entry Age Normal | 101.50% | (5.00%) | 4.00% | 4.65%-8.25% | 7.50% | MKT, 5-yr smoothing | --- ¹³ |
| Illinois/SERS | Jun-02 | Projected Unit Credit | 53.70% | 178.20% | 3.00% | 1.00%-10.00%8.50% | | MKT | 40 ¹⁴ |

UAAL = Unfunded Accrued Actuarial Liability

TABLE 7.
ACTUARIAL METHODS AND FUNDING (Continued)

| State/Fund | Valuation Date | Actuarial Method | Funded Ratio | UAAL as % of Covered Payroll | Assumed Inflation | Salary Growth Assumed | Interest Rate Assumed | Asset Valuation Method | Amortization Period (in years) |
|--------------------------|----------------|-----------------------|--------------|------------------------------|-------------------|-----------------------|-----------------------|------------------------|--------------------------------|
| Illinois/SURS | Jun-02 | Projected Unit Credit | 58.90% | 262.30% | 3.00% | 5.50%-9.5% | 8.50% | MKT | 34 |
| IL-Chicago/PSTPRF | Jun-02 | Projected Unit Credit | 96.31% | 23.10% | 3.00% | 5.50% 15 | 8.00% | MKT, 4-yr smoothing | 40 |
| Indiana/TRF 16 | Jun-02 | Entry Age Normal | 53.20% | 54.300% | 5.50% | 5.50%-10.60% | 7.50% | MKT, 4-yr smoothing | 37 |
| Indiana/PERF 17 | Jul-01 | Entry Age Normal | 108.81% | (11.69%) | ----- | 3.500%-17.00% | 7.25% | ----- 18 | 36 |
| Iowa/PERS | Jun-02 | Entry Age Normal | 92.56% | 26.47% | 3.50% | 4.0%-18.5% | 7.50% | MKT, 4-yr smoothing | --- 19 |
| Kansas/PERS | Dec-02 | Projected Unit Credit | 77.60% | 58.00% | 3.50% | 4.00%-9.80% | 8.00% | MKT, 3-yr smoothing | 30 |
| Kentucky/TRS | Jun-02 | Projected Unit Credit | 86.60% | 91.10% | 4.00% | 4.00%-8.10% | 7.50% | MKT, 5-yr smoothing | 30 |
| Kentucky/CERS 20 | Jun-02 | Entry Age Normal | 129.60% | (74.10%) | 3.50% | 6.50%-12.00% | 8.25% | MKT, 5-yr smoothing | 30 |
| Kentucky/KERS 21 | Jun-02 | Entry Age Normal | 110.40% | (39.30%) | 3.50% | 6.50%-12.00% | 8.25% | MKT, 5-yr smoothing | 30 |
| Louisiana/TRSL | Jun-02 | Projected Unit Credit | 73.90% | 152.80% | 3.00% | 5.75%-8.95% | 8.25% | MKT, 4-yr smoothing | 27 |
| Louisiana/LASERS | Jun-02 | Projected Unit Credit | 70.20% | 147.50% | 3.00% | 4.00%-11.75% | 8.25% | MKT, 4-yr smoothing | 27 |
| Maine/MSRS | Jul-02 | Entry Age Normal | 77.00% | 135.40% | 5.50% | 5.50%-9.50% | 8.00% | Modified MKT (22) | 17 |
| Maryland/MSRPS 23 | Jun-02 | Entry Age Normal | 94.70% | 23.00% | 5.00% | 5.94%-11.82% | 8.00% | MKT, 5-yr smoothing | 18 |
| Massachusetts/TRS | Jan-02 | Entry Age Normal | 76.20% | 115.10% | 3.00% | 4.75%-9.50% | 8.25% | MKT, 5-yr smoothing | 21 |
| Massachusetts/SERS | Jan-03 | Entry Age Normal | 79.50% | 95.40% | 3.00% | 4.75%-12.00% | 8.25% | MKT, 5-yr smoothing | 20 |
| Michigan/MPERS | Sep-01 | Entry Age Normal | 96.50% | 14.80% | 4.00% | 4.00%-13.50% | 8.00% | MKT, 5-yr smoothing | 35 |
| Michigan/MSERS 24 | Sep-01 | Entry Age Normal | 107.60% | (33.80%) | 4.00% | 4.00%-16.00% | 8.00% | MKT, 5-yr smoothing | 35 |
| Michigan/MERS | Dec-01 | Entry Age Normal | 84.30% | 58.90% | 4.50% | 4.50%-8.66% | 8.00% | MKT, 5-yr smoothing | 30 25 |
| Minnesota/TRA | Jul-02 | Entry Age Normal | 105.31% | (30.47%) | 5.00% | 5.25%-7.25% | 8.50% | MKT, 5-yr smoothing | 29 |
| Minnesota/PERF | Jul-02 | Entry Age Normal | 85.00% | 50.90% | 5.00% | 5.00%-6.40% | 8.50% | MKT, 5-yr smoothing | 29 |
| Minnesota/SERF | Jul-02 | Entry Age Normal | 104.53% | (17.37%) | 5.00% | 5.00%-6.75% | 8.50% | MKT, 5-yr smoothing | 29 |
| MN-Minneapolis/ MTRFA | Jul-02 | Entry Age Normal | 61.94% | 254.38% | 5.00% | 5.00%-6.50% | 8.50% | MKT, 5-yr smoothing | 18 |
| MN-St. Paul/SPTFA | Jul-02 | Entry Age Normal | 78.82% | 112.64% | 5.00% | 5.25%-6.75% | 8.50% | MKT, 5-yr smoothing | 18 |
| Mississippi/PERS | Jun-02 | Entry Age Normal | 83.40% | 79.50% | 4.00% | 5.00%-18.00% | 8.00% | MKT, 5-yr smoothing | 22.5 |
| Missouri/PSRS | Jun-02 | Entry Age Normal | 95.30% | 34.20% | 3.50% | 5.00%-10.00% | 8.00% | MKT, 5-yr smoothing | 30 |

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TABLE 7.
ACTUARIAL METHODS AND FUNDING (Continued)

| State/Fund | Valuation Date | Actuarial Method | Funded Ratio | UAAL as % of Covered Payroll | Assumed Inflation | Salary Growth Assumed | Interest Rate Assumed | Asset Valuation Method | Amortization Period (in years) |
|-------------------------------|----------------------|--------------------------|--------------|------------------------------|-------------------|--------------------------------|-----------------------|----------------------------|--------------------------------|
| Missouri/NTRS | Jun-02 | Entry Age Normal | 97.60% | 5.10% | 3.50% | 5.00%-10.00% | 8.00% | MKT, 5-yr smoothing | 30 |
| MO-St. Louis/ | | | | | | | | | |
| PSRS of St. Louis | Jan-02 | Frozen Entry Age | 80.50% | 85.60% | 4.50% | 4.50%-6.00% | 8.00% | Modified MKT | ---- ²⁶ |
| Missouri/ | | | | | | | | | |
| MOSERS ²⁷ | Jun-02 | Entry Age Normal | 95.90% | 14.70% | 3.50% | 4.00%-6.70% ²⁸ | 8.50% | MKT, 5-yr smoothing | 33 |
| Montana/TRS | Jul-02 | Entry Age Normal | 83.40% | 87.90% | 4.00% | 5.00%-9.51% | 8.00% | MKT, 5-yr smoothing | 23.4 |
| Montana/PERS | Jul-02 | Entry Age Normal | 99.97% | 0.12% | 4.50% | 4.50%-10.50% | 8.00% | MKT, 4-yr smoothing | 0.1 |
| Nebraska/SRS | Jul-02 | Entry Age Normal | 94.90% | 24.00% | 3.50% | 4.5%-9.10% | 8.00% | MKT, 5-yr smoothing | 25 |
| Nebraska/SERS ²⁹ | Jan-03 | Entry Age Normal | 100.20% | (3.50%) | 3.50% | 4.5%-9.10% | 7.60% | MKT, 5-yr smoothing | 25 |
| NE-Omaha/OSERS | Sep-02 | Entry Age Normal | 83.09% | 76.79% | 3.50% | 4.0%-6.60% | 8.00% | ----- ³⁰ | ---- |
| Nevada/PERS | Jun-02 | Entry Age Normal | 82.40% | 93.90% | 4.50% | 4.50%- 12.90% ³¹ | 8.00% | MKT, 5-yr smoothing | 22 |
| New Hampshire/ | Jun-02 ³² | Open Group | 81.25% | ----- | 3.50% | 6.00% ³³ | 9.00% | MKT, 5-yr smoothing | ---- |
| NHRS | | Aggregate | | | | | | | |
| New Jersey/TPAF | Jun-01 | Projected Unit Credit | 107.96% | (37.51%) | 4.00% | 5.95% | 8.75% | MKT, 5-yr smoothing | 30 |
| New Jersey/PERS ³⁴ | Jul-01 | Projected Unit Credit | 112.50% | (37.60%) | 4.00% | 5.95% | 8.75% | MKT, 5-yr smoothing | 30 |
| New Mexico/ERB | Jun-02 | Entry Age Normal | 86.80% | 58.20% | 3.00% | 4.50%-13.00% | 8.00% | MKT, 5-yr smoothing | 27.2 |
| New Mexico/PERA | Jun-02 | Entry Age Normal | 103.10% | (18.94%) | 4.50% | 5.00%-15.50% | 8.00% | MKT, 4-yr smoothing | 10 |
| New York/TRS | Jun-01 | Aggregate Cost | 125.00% | ----- | 3.00% | 4.38%-11.53% | 8.00% | Modified MKT ³⁵ | ---- |
| New York/ERS | Apr-02 | Aggregate Cost | ----- | ----- | 3.50% | 6.00% | 8.00% | Modified MKT ³⁶ | ---- |
| NY-New York City/ | Jun-01 | Frozen Initial Liability | 100.00% | 0.10% | 2.50% | 3.00% | 8.00% | MKT, 5-yr smoothing | ---- |
| TRS | | | | | | | | | |
| North Carolina/TSERS | Dec-01 | Entry Age Normal | 111.60% | (46.20%) | 3.75% | 5.45%-12.08% | 7.25% | MKT, 5-yr smoothing | 10 |
| North Carolina/ | Dec-01 | Frozen Entry Age | 99.30% | 2.00% | 3.75% | 5.45%-12.08% | 7.25% | MKT, 5-yr smoothing | ---- |
| LGERS | | | | | | | | | |
| North Dakota/TFFR | Jul-02 | Entry Age Normal | 91.60% | 38.00% | 3.00% | 4.00%-13.00% | 8.00% | MKT, 5-yr smoothing | 20 ³⁷ |
| North Dakota/PERS | Jul-02 | Entry Age Normal | 104.20% | (10.10%) | 4.50% | 4.70%-7.00% | 8.00% | MKT, 5-yr smoothing | 20 |
| Ohio/STRS | Jul-02 | Entry Age Normal | 77.40% | 163.00% | 3.50% | 3.25%- 9.25% ³⁸ | 7.75% | MKT, 4-yr smoothing | 39 |
| Ohio/PERS | Dec-01 | Entry Age Normal | 103.00% | (12.00%) | 4.00% | 4.50%-10.30% | 8.00% | MKT, 4-yr smoothing | 0-19 |
| Ohio/SERS | Jun-02 | Entry Age Normal | 89.00% | 51.00% | 4.25% | 4.75%-25.00% | 8.25% | MKT, 4-yr smoothing | 30 |
| Oklahoma/TRS | Jun-02 | Entry Age Normal | 51.40% | 195.80% | 3.00% | 4.25%-7.00% | 8.00% | MKT, 5-yr smoothing | 40 |
| Oklahoma/PERS | Jul-02 | Entry Age Normal | 79.80% | 92.40% | 3.00% | 5.10%-9.00% | 7.50% | MKT, 5-yr smoothing | 25 |

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TABLE 7.
ACTUARIAL METHODS AND FUNDING (Continued)

| State/Fund | Valuation Date | Actuarial Method | Funded Ratio | UAAL as % of Covered Payroll | Assumed Inflation | Salary Growth Assumed | Interest Rate Assumed | Asset Valuation Method | Amortization Period (in years) |
|---------------------------------|----------------|--------------------------|---------------------|----------------------------------|--------------------|----------------------------|-----------------------|------------------------|--------------------------------|
| Oregon/PERS ³⁹ | Dec-01 | Entry Age Normal | 87.60% | 89.80% | 3.50% | 4.25% | 8.00% | MKT, 4-yr smoothing | 26 |
| Pennsylvania/PSERS | Jun-02 | Entry Age Normal | 104.80% | (24.20%) | 3.50% | 4.50%-10.00% ⁴⁰ | 8.50% | MKT, 5-yr smoothing | 10 |
| Pennsylvania/SERS | Dec-02 | ----- ⁴¹ | 107.20% | (36.30%) | 3.00% | 5.16%-8.98% | 8.50% | MKT, 5-yr smoothing | 10 |
| Pennsylvania/PMRS | Jan-00 | Entry Age Normal | 111.00% | (28.4%) | 3.50% | 4.60%-6.50% | 6.50% | Modified MKT | 10-30 |
| Rhode Island/ERSRI | Jun-01 | Entry Age Normal | ----- ⁴² | ----- ⁴² | 3.00% | ----- ⁴³ | 8.25% | MKT, 5-yr smoothing | 28 |
| Rhode Island/MERS | Jun-01 | Entry Age Normal | 1118.10% | (60.80%) | 3.00% | ----- ⁴⁴ | 8.25% | MKT, 3-yr smoothing | varies |
| South Carolina/SCRS | Jul-01 | Entry Age Normal | 87.40% | 44.50% | 3.75% | 4.00%-9.00% | 7.25% | MKT, 5-yr smoothing | 18 |
| South Dakota/SDRS | Jun-02 | Entry Age ⁴⁵ | 96.70% | 14.00% | 4.50% | 4.90%-8.90% | 8.00% | MKT, 5-yr smoothing | 20 |
| Tennessee/CRS ⁴⁶ | Jun-01 | Frozen Entry Age | 99.61% | 1.82% | ---- ⁴⁷ | 4.75% ⁴⁸ | 7.50% | MKT, 5-yr smoothing | 14 |
| Texas/TRS | Aug-02 | Entry Age Normal | 96.30% | 13.2% | 3.00% | 4.00%- | 8.00% | MKT, 5-yr smoothing | ---- ⁵⁰ |
| Texas/ERS | Aug-01 | Entry Age Normal | 104.90% | 26.15% ⁴⁹ (17.50%) | 4.00% | 5.25%-17.5% | 8.00% | MKT, 5-yr smoothing | 40 |
| Utah/SRS ⁵¹ | Dec-02 | Entry Age Normal | 93.6% | 25.3% | 3.00% | 4.75%-15.00% | 8.00% | MKT, 5-yr smoothing | 20 |
| Vermont/STRS | Jun-02 | Frozen Initial Liability | 89.50% | 32.70% | 4.50% | 4.90%-8.90% | 8.50% | Modified MKT | 16 |
| Vermont/MERS | Jun-02 | Projected Benefit Cost | 109.70% | ----- | 4.60% | 5.60% | 8.00% | MKT, 5-yr smoothing | ---- |
| Vermont/VSRS | Jun-02 | Frozen Initial Liability | 97.40% | 9.20% | 4.50% | 4.50%-7.79% | 8.50% | Modified MKT | 17 |
| Virginia/VRS ⁵² | Jun-01 | Entry Age Normal | 107.30% | (25.50%) | 3.00% | 4.00%-6.10% ⁵³ | 8.00% | MKT, 5-yr smoothing | ---- ⁵⁴ |
| Washington/ TRS-Plan 1 | Sep-01 | Entry Age Normal | 94.00% | 69.12% | 3.50% | 4.50%-10.70% | 8.00% | MKT, 4-yr smoothing | 22.75 |
| Washington/ TRS-Plan 2 | Sep-01 | Aggregate Cost | ----- | ----- | 3.50% | 4.50%-10.70% | 8.00% | MKT, 4-yr smoothing | ---- |
| Washington/ TRS-Plan 3 | Sep-01 | Aggregate Cost | ----- | ----- | 3.50% | 4.50%-10.70% | 8.00% | MKT, 4-yr smoothing | ---- |
| Washington/PERS/ SERS-Plan 2 | Sep-01 | Aggregate Cost | ----- | ----- | 3.50% | 4.50%-11.50% | 8.00% | MKT, 4-yr smoothing | ---- |
| Washington/PERS/ SERS-Plan 3 | Sep-01 | Aggregate Cost | ----- | ----- | 3.50% | 4.50%-11.50% | 8.00% | MKT, 4-yr smoothing | ---- |
| Washington/ PERS-Plan 1 | Sep-01 | Entry Age Normal | 91.00% | 101.20% | 3.50% | 4.50%-10.60% | 8.00% | MKT, 4-yr smoothing | 22.75 |

UAAL = Unfunded Accrued Actuarial Liability

TABLE 7.
ACTUARIAL METHODS AND FUNDING (Continued)

| State/Fund | Valuation Date | Actuarial Method | Funded Ratio | UAAL as % of Covered Payroll | Assumed Inflation | Salary Growth Assumed | Interest Rate Assumed | Asset Valuation Method | Amortization Period (in years) |
|------------------------------------|----------------|--------------------------|--------------|------------------------------|-------------------|-----------------------|-----------------------|------------------------|--------------------------------|
| Washington/PERS/SERS-Plan 2 | Sep-01 | Aggregate Cost | ----- | ----- | 3.50% | 4.50%-10.60% | 8.00% | MKT, 4-yr smoothing | ---- |
| Washington/PERS/SERS-Plan 3 | Sep-01 | Aggregate Cost | ----- | ----- | 3.50% | 4.50%-10.60% | 8.00% | MKT, 4-yr smoothing | ---- |
| West Virginia/TRS | Jul-02 | Entry Age Normal | 19.20% | 547.80% | 3.50% | 3.40%-6.80% | 7.50% | MKT | 32 |
| West Virginia/TDC | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ---- |
| West Virginia/PERS | Jul-02 | Entry Age Normal | 75.40% | 81.10% | 3.50% | 4.00%-6.00% | 7.50% | MKT | ---- |
| Wisconsin/WRS | Dec-01 | Frozen Initial Liability | 96.50% | 21.30% | 4.50% | 4.50%-10.5% | 8.00% | MKT, 5-yr smoothing | 28 |
| Wyoming/WRS | Jan-03 | Entry Age Normal | 92.20% | 37.1% | 3.00% | 5.00% | 8.00% | MKT, 5-yr smoothing | 21 |

Table 7.
Footnotes

- 1** Alabama ERS: Excluding COLAs, the amortization period varies by employer from 10 to 20 years.
- 2** Alaska TRS: Includes healthcare benefits; 93.2% funded ratio for non-medical retirement benefits.
- 3** Alaska TRS: Previous valuation method replaced and all gains and losses recognized in 2002.
- 4** Alaska PERS: Includes healthcare benefits; 120.9% funded ratio for non-medical retirement benefits.
- 5** Alaska PERS: Previous valuation method replaced and all gains and losses recognized in 2002.
- 6** California STRS: Beginning 7/1/2001, actuarial valuations are not prepared in even numbered years and no estimation using actuarial methodology is made in years between valuations.
- 7** California PERS: Unless otherwise noted, the data in this table are a composite for plans which make up the Public Employee Retirement Fund (PERF).
- 8** California PERS: Varies by group and duration of service; for example, State Miscellaneous Tier 1 & Tier 2 ranges from 3.75% to 8.45%.
- 9** California PERS: 10 years for Schools, 31 years for public agencies and 6 to 20 years for State plans.
- 10** Colorado PERA: Data in table are for State and School Division Trust Fund. At 12/31/02, the funded ratio for system as a whole was 88.30% and UAAL as a percentage of member salaries was 69.90%, based an inflation assumption of 4.5%, a payroll growth assumption of 5.5%, and an interest assumption of 8.75%.
- 11** Hawaii ERS: Included is an actuarial accrued liability related to the Early Retirement Incentive Program retirees who retired on December 31, 1994, and June 30, 1995, amounting to \$70,218,385 as of June 30, 2002.
- 12** Illinois TRS: Data in table are for GASB #25 reporting purposes; 43 years per state statute.
- 13** Illinois IMRF: 28 years for taxing bodies; generally 5 years for non-taxing bodies.
- 14** Illinois SERS: Data in table are for GASB #25 reporting purposes; 43 years per state statute.
- 15** IL-Chicago PSTPRF: Average annual rate of increase; rates vary by age from 4.5% to 12.2%.
- 16** Indiana TRF: Data in table are for "New Plan"; for "Closed Plan" at 6/30/02, the funded ratio was 41.2%; UAAL as a percentage of covered payroll was 304.9%.
- 17** Indiana PERF: Data in the table are for "state" group; funded ratio for municipal group is 110.00%.
- 18** Indiana PERF: Asset valuation equals 75% of expected actuarial value plus 25% of cost value for annual funding purposes.
- 19** Iowa PERS: Infinite.
- 20** Kentucky CERS: Data in table applies to nonhazardous employees.
- 21** Kentucky KERS: Data in table applies to nonhazardous employees.
- 22** Maine MSRS: For actuarial purposes, assets are valued by determining the total yield on the investments of the System using the full investment return (including unrealized capital gains), which is measured by the difference in the actuarial value of assets at the beginning of the fiscal year and the market value of assets at the end of the fiscal year. Prior year's unrecognized gains and losses are added to this amount to develop expected actuarial value. One third of the excess of the yield (using full investment return) over the actuarially determined yield is added to the expected actuarial value to determine the actuarial valuation of assets.

- 23** Maryland MSRPS: Data shown are for all plans combined (including TRS, TPS, ERS, EPS) in Maryland State Retirement and Pension System (MSRPS).
- 24** Michigan MSERS: Closed plan.
- 25** Michigan MERS: 30 years for those municipalities participating with MERS for over 10 years. For new municipalities that joined MERS prior to 2001, the amortization period was greater than 30 years and will decline by 1 year until the period reaches 30 years.
- 26** MO-St. Louis SPRS: The unfunded accrued liability as of 1/1/1981 is amortized over the period ending 10/13/2011 while subsequent "supplements" are amortized over a period of 50 years from the year in which created.
- 27** Missouri MOSERS: Data in table is for state employees plan; it does not include administrative law judge plan or judicial plan.
- 28** Missouri MOSERS: Assumes average annual wage inflation of 4.0% plus 0.0% to 2.7% per year merit and/or seniority increases.
- 29** Nebraska SERS: Data in the table is for the new state employees' cash balance plan.
- 30** NE-Omaha OSERS: Assets are valued at expected value at valuation date (i.e., previous year's actuarial value plus contributions less benefit payments plus 8% assumed earnings) plus _ of difference between market value and expected value.
- 31** Nevada PERS: Annual average of 6.5%, with 5.0% based on general wage inflation.
- 32** New Hampshire NHRS: June 30, 2001 actuarial valuation projected to June 30, 2002.
- 33** New Hampshire NHRS: Graded scale that produces annual average of 6.0%.
- 34** New Jersey PERS: Funded ratio in table is for state employees; funded ratio for local employees is 120.3%. UAAL as percent of payroll in table is for state employees; UAAL as percent of payroll for local employees is -53.6%.
- 35** New York TRS: Five-year smoothing for equities, real estate, and alternative investments.
- 36** New York ERS: The actuarial asset value for domestic bonds and mortgages is amortized value; short-term investments are at market value; all other investments use a 5-year moving average of market values method assuming a 5% rate of expected appreciation. The method immediately recognizes regular investment income (interest and dividends) while phasing in unexpected appreciation/depreciation over a five year period; it treats realized and unrealized gains or losses in the same manner.
- 37** North Dakota TFFR: Statutory 7.75% employer contribution rate produces 10.0 years funding period.
- 38** Ohio STRS: Average salary increase assumed is 4.50%.
- 39** Oregon PERS: Data in table applies to pension benefits only; does not include post-employment healthcare benefits.
- 40** Pennsylvania PSERS: Projected annual average salary increases of 6.25%.
- 41** Pennsylvania SERS: A variation of the Entry-Age Actuarial Cost Method is used. The significant difference between the method used for SERS and the typical Entry-Age Cost Method is that the normal cost is based on benefits and contributions for new employees rather than for all current employees from their date of entry.
- 42** Rhode Island ERSRI: The funded ratio for state employees as of 6/30/01 was 77.9% and UAAL as a percent of covered payroll was 126.7%; the funded ratio for teachers as of 6/30/01 was 77.4% and UAAL as a percent of covered payroll was 141.5%.
- 43** Rhode Island ERSRI: Projected salary increase for state employees: 4.25%-14.25%; projected salary increase for teachers: 4.25%-16.75%.

- 44** Rhode Island MERS: Projected salary increase for general employees: 4.25%-10.25%; projected salary increase for police and fire employees: 5.00%-15.50%.
- 45** South Dakota SDRS: Entry age with frozen unfunded actuarial liability; effective with the year ended 6/30/95, the actuarial costs defined under the entry age normal method were modified to freeze unfunded liabilities and recognize plan gains and losses directly in normal cost by amortizing them over the future payroll of the membership.
- 46** Tennessee CRS: Data in table apply to state employee, higher education employee and teacher plan (SETHEEPP). Actuarial valuation every two years. Political subdivision plan (PSPP) reported to be 90.36% funded at 7/1/01 with 22.01% UAAL as a percent of covered payroll. Consolidated system (i.e., both plans) reported to be 98% funded with 7% UAAL as a percent of covered payroll.
- 47** Tennessee CRS: No explicit assumption made regarding the portion of wage growth attributable to effect of inflation.
- 48** Tennessee CRS: Approximation to graded salary scale growth.
- 49** Texas TRS: Range of salary increases shown in table; weighted average salary growth at valuation date: 6.83%.
- 50** Texas TRS: Contribution rates set by law are intended to provide for the normal cost plus the level percentage of payroll required to amortize the unfunded actuarial accrued liability over a period not in excess of 31 years. However, since current contribution rates are less than the normal cost rate, there are no contributions available to amortize unfunded actuarial accrued liability, therefore the funding period corresponding to the current 6.00% state contribution rate is "never" or "infinite" which is greater than the statutory limit of 31 years.
- 51** Utah SRS: Data in the table apply to noncontributory plan.
- 52** Virginia VRS: Actuarial valuation every two years.
- 53** Virginia VRS: Salary assumptions for major employee groups are: teachers, 4.00%-6.10%; state employees, 4.25%-6.10%.
- 54** Virginia VRS: 14 years for teachers; 0 years for state employees.

TABLE 8.
PUBLIC EMPLOYEE RETIREMENT SYSTEM BOARD MEMBERSHIP

| State/Fund | Total # on Board | # of Active Employees Who are Board Members | # of Retired Employees Who are Board Members | Board Member Selection: | | | | |
|--------------------------|------------------|---------------------------------------------|----------------------------------------------|-------------------------------|---------------|------------------|------------|-------------|
| | | | | Elected by Constituent Groups | Appt. by Gov. | Appt. by Other | Ex Officio | Other |
| Alabama/TRS | 14 | 8 1 | 2 | 10 2 | 0 | 0 | 4 | 0 |
| Alabama/ERS | 13 | 7 3 | 2 | 6 | 3 | 0 | 4 | 0 |
| Alaska/TRS 4 | 5 | 0 | 5 | 0 | 5 5 | 0 | 0 | 0 |
| Alaska/PERS 4 | 5 | 0 | 5 | 2 6 | 3 | 0 | 0 | 0 |
| Arizona/ASRS | 9 | 4 | 1 | 0 | 9 | 0 | 0 | 0 |
| Arkansas/ATRS | 15 | 7 7 | 4 | 11 | 0 | 0 | 4 | 0 |
| Arkansas/PERS | 9 | 6 | 0 | 0 | 6 | 0 | 3 | 0 |
| California/STRS | 12 | 3 | 1 | 3 | 5 | 0 | 4 | 0 |
| California/PERS | 13 | 4 | 2 | 6 | 2 | 2 | 3 | 0 |
| California/UCRS 8 | 26 | 0 | 0 | 0 | 18 | 1 | 7 | 0 |
| Colorado/PERA | 16 | 12 | 2 | 14 9 | 0 | 0 | 2 | 0 |
| CO-Denver/DPSRS | 11 | 6 | 2 | 8 | 0 | 3 | 0 | 0 |
| Connecticut/TRS | 12 | 3 | 2 | 5 | 5 | 0 | 2 | 0 |
| Connecticut/SERS | 15 | 12 | 0 | 6 | 9 10 | 0 | 0 | 0 |
| Connecticut/CMERS | 15 | 12 | 0 | 6 | 8 | 0 | 1 | 0 |
| Delaware/SEPP | 7 | 0 | 0 | 0 | 5 | 0 | 2 | 0 |
| Florida/FRS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Georgia/TRS | 10 | 5 | 1 | 0 | 7 | 1 | 2 | 0 |
| Georgia/ERS | 7 | 1 | 1 | 0 | 1 | 1 | 3 | 2 |
| Georgia/PSERS 11 | 9 | 1 | 1 | 0 | 3 | 1 | 3 | 2 |
| Hawaii/ERS | 8 | 3 | 1 | 4 | 3 | 0 | 1 | 0 |
| Idaho/PERS | 5 | 2 | 0 | 0 | 5 | 0 | 0 | 0 |
| Illinois/TRS | 11 | 4 | 2 | 6 | 4 | 0 | 1 | 0 |
| Illinois/IMRF | 8 | 3 | 1 (non-voting) | 4 | 0 | 0 | 0 | 4 12 |
| Illinois/SERS | 7 | 2 | 2 | 2 | 3 | 0 | 2 | 0 |
| Illinois/SURS | 9 | 2 | 2 | 0 | 7 | 0 | 0 | 2 |
| IL-Chicago/PSTPRF | 12 | 7 | 3 | 10 | 0 | 2 | 0 | 0 |
| Indiana/TRF | 5 | 1 | 1 | 0 | 5 | 0 | 0 | 0 |
| Indiana/PERF | 5 | 1 | 1 | 0 | 5 | 0 | 0 | 0 |
| Iowa/PERS 13 | 11 | 2 | 1 | 0 | 6 | 4 (non-voting) 1 | | 0 |
| Kansas/PERS | 9 | 1 | 1 | 2 14 | 4 | 2 | 1 | 0 |

TABLE 8.
PUBLIC EMPLOYEE RETIREMENT SYSTEM BOARD MEMBERSHIP (Continued)

| State/Fund | Total # on Board | # of Active Employees Who are Board Members | # of Retired Employees Who are Board Members | Board Member Selection: | | | | |
|------------------------------------|------------------|---------------------------------------------|----------------------------------------------|-------------------------------|---------------|----------------|------------|-------------|
| | | | | Elected by Constituent Groups | Appt. by Gov. | Appt. by Other | Ex Officio | Other |
| Kentucky/TRS | 9 | 4 | 1 | 7 | 0 | 0 | 2 | 0 |
| Kentucky/ CERS, KERS, SPRS | 9 | 5 | 2 | 5 | 3 | 0 | 1 | 0 |
| Louisiana/TRSL | 16 | 10 | 2 | 12 | 0 | 0 | 4 | 0 |
| Louisiana/LASERS | 12 | 6 | 3 | 9 | 0 | 0 | 3 | 0 |
| Maine/MSRS | 8 | 3 | 2 | 3 | 4 15 | 0 | 1 | 0 |
| Maryland/ TRS, TPS, ERS, EPS | 14 | 3 16 | 2 16 | 5 | 4 | 0 | 4 | 0 |
| Massachusetts/TRS | 7 | 1 | 3 | 2 | 1 | 1 | 3 | 0 |
| Massachusetts/SERS | 5 | 0 | 2 | 2 | 0 | 1 | 1 | 1 |
| Michigan/MPERS | 12 | 6 17 | 2 18 | 0 | 11 | 0 | 1 | 0 |
| Michigan/MSERS | 9 | 2 | 2 | 0 | 4 | 0 | 5 | 0 |
| Michigan/MERS | 9 | 3 | 1 | 7 | 0 | 0 | 0 | 2 |
| Minnesota/TRA | 8 | 4 | 1 | 5 | 0 | 1 | 2 | 0 |
| Minnesota/PERA | 11 | 4 | 2 | 5 | 5 | 0 | 1 | 0 |
| Minnesota/SERF(MSRS) | 11 | 6 | 1 | 7 | 3 | 1 | 0 | 0 |
| MN-Minneapolis/MTRFA | 7 | 3 | 3 | 6 | 0 | 1 | 0 | 0 |
| MN-St. Paul/SPTFA | 10 | 6 | 3 | 9 | 0 | 0 | 1 | 0 |
| Mississippi/PERS | 10 | 6 | 2 | 8 19 | 1 | 0 | 1 | 0 |
| Missouri/PSRS, NTRS | 7 | 4 | 1 | 4 | 3 | 0 | 0 | 0 |
| MO-St. Louis/ PSRS of St. Louis | 11 | 5 | 2 | 7 | 0 | 4 | 0 | 0 |
| Missouri/MOSERS | 11 | 2 | 1 | 3 | 2 | 4 | 2 | 0 |
| Montana/TRS | 6 | 3 | 1 | 0 | 6 | 0 | 0 | 0 |
| Montana/PERS | 7 | 3 | 1 | 0 | 7 | 0 | 0 | 0 |
| Nebraska/SRS | 8 | 3 | 1 | 0 | 7 | 0 | 1 | 0 |
| Nebraska/SERS | 8 | 3 | 1 | 0 | 7 | 0 | 1 | 0 |
| NE-Omaha/OSERS | 10 | 4 | 1 | 0 | 0 | 9 | 1 | 0 |
| Nevada/PERS | 7 | 6 20 | 1 | 0 | 7 | 0 | 0 | 0 |
| New Hampshire/NHRS | 13 | 8 | 0 | 0 | 10 21 | 2 | 1 | 0 |
| New Jersey/TPAF | 7 | 2 | 1 | 3 | 2 | 0 | 1 | 1 22 |
| New Jersey/PERS | 9 | 5 | 2 | 6 | 2 | 0 | 1 | 0 |
| New Mexico/ERB | 7 | 2 | 1 | 3 | 2 | 0 | 2 | 0 |
| New Mexico/PERA | 12 | 8 | 2 | 10 | 0 | 0 | 2 | 0 |

TABLE 8.
PUBLIC EMPLOYEE RETIREMENT SYSTEM BOARD MEMBERSHIP (Continued)

| State/Fund | Total # on Board | # of Active Employees Who are Board Members | # of Retired Employees Who are Board Members | Board Member Selection: | | | | |
|-------------------------------|-------------------|---------------------------------------------|----------------------------------------------|-------------------------------|-------------------|-------------------|-------------------|-------------------|
| | | | | Elected by Constituent Groups | Appt. by Gov. | Appt. by Other | Ex Officio | Other |
| New York/TRS | 10 | 3 | 1 | 4 | 0 | 4 | 1 | 1 |
| New York/ERS | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| NY-New York City/TRS | 7 | 3 | 0 | 3 | 0 | 2 | 2 | 0 |
| North Carolina/TSERS | 14 | 7 | 2 | 0 | 10 | 2 | 2 | 0 |
| North Carolina/LGERS | 17 | 10 | 2 | 0 | 13 | 2 | 2 | 0 |
| North Dakota/TFFR | 7 ²³ | 3 ²⁴ | 2 | 0 | 5 | 0 | 2 | 0 |
| North Dakota/PERS | 7 ²⁵ | 3 | 1 | 4 | 1 | 0 | 2 | 0 |
| Ohio/STRS | 9 | 5 | 1 | 6 | 0 | 0 | 3 | 0 |
| Ohio/PERS | 9 | 5 | 1 | 6 | 1 | 0 | 2 | 0 |
| Ohio/SERS | 7 | 4 | 1 | 5 | 0 | 0 | 2 | 0 |
| Oklahoma/TRS | 13 | 6 ²⁶ | 2 | 0 | 6 | 4 | 3 | 0 |
| Oklahoma/PERS | 13 | 9 | 1 | 0 | 3 | 5 | 5 | 0 |
| Oregon/PERS | 5 | 1 | 0 | 0 | 5 | 0 | 0 | 0 |
| Pennsylvania/PSERS | 15 | 4 | 1 | 6 ²⁷ | 2 | 4 | 3 | 0 |
| Pennsylvania/SERS | 11 | 6 ²⁸ | 2 | 0 | 6 | 4 | 1 | 0 |
| Pennsylvania/PMRS | 11 | 2 | 1 | 0 | 9 ²⁹ | 0 | 2 | 0 |
| Rhode Island/ ERSRI, MERS | 15 | 5 ³⁰ | 1 | 6 | 2 | 0 | 4 | 3 |
| South Carolina/SCRS | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| South Dakota/SDRS | 17 | 11 ³¹ | 1 | 14 | 2 | 0 | 1 ³² | 0 |
| Tennessee/CRS | 18 | 8 ³³ | 1 | 5 | 1 | 3 | 9 | 0 |
| Texas/TRS | 9 | 3 | 1 | 0 | 9 ³⁴ | 0 | 0 | 0 |
| Texas/ERS | 6 | 3 | 0 | 3 | 1 | 2 | 0 | 0 |
| Utah/SRS | 7 | 2 ³⁵ | 0 | 0 | 6 | 0 | 1 | 0 |
| Vermont/STRS | 6 | 2 | 1 | 2 | 0 | 1 | 3 | 0 |
| Vermont/MERS | 5 | 3 | 0 | 3 | 1 | 0 | 1 | 0 |
| Vermont/VSRS | 6 | 3 | 0 | 3 | 1 | 0 | 2 | 0 |
| Virginia/VRS | 9 | 3 | 1 | 0 | 5 | 4 | 0 | 0 |
| Washington/ TRS,PERS, SERS | --- ³⁶ | --- ³⁶ | --- ³⁶ | --- ³⁶ | --- ³⁶ | --- ³⁶ | --- ³⁶ | --- ³⁶ |

TABLE 8.
PUBLIC EMPLOYEE RETIREMENT SYSTEM BOARD MEMBERSHIP (Continued)

| State/Fund | Total # on Board | # of Active Employees Who are Board Members | # of Retired Employees Who are Board Members | Board Member Selection: | | | | |
|-------------------------------------|------------------|---------------------------------------------|----------------------------------------------|-------------------------------|---------------|----------------|------------|-------|
| | | | | Elected by Constituent Groups | Appt. by Gov. | Appt. by Other | Ex Officio | Other |
| West Virginia/ TRS, TDC, PERS 37 | 14 | 5 | 1 | 0 | 10 | 0 | 4 | 0 |
| Wisconsin/WRS | 13 33 | 7 | 3 | 2 | 1 | 8 | 2 | 0 |
| Wyoming/WRS | 11 | 4 | 1 | 0 | 10 | 0 | 1 | 0 |

Table 8.
Footnotes

- 1** Alabama TRS: Active employees include 3 teacher positions, 1 postsecondary position, 2 educational support positions, 1 principal position, and 1 superintendent position. There are 2 retiree positions. Ex officio members include the State Superintendent of Education, the State Treasurer, the State director of Finance, and the Executive Secretary of the Alabama Education Association.
- 2** Alabama TRS: 2 retired members, 1 superintendent, 1 principal, 1 postsecondary education member, 3 active K-12 teachers, 2 educational support personnel -- all of whom are elected by the members of the retirement system in a statewide election conducted by the system.
- 3** Alabama ERS: Includes 2 active elected state employees, 2 active elected local employees, and 3 appointed members.
- 4** Alaska TRS, PERS: Separate state pension investment board serves both plans. Eight total board seats on state pension investment board; 2 seats for TRS and 2 seats for PERS out of these 8 seats. The TRS and PERS representatives are elected by TRS and PERS members.
- 5** Alaska TRS: State statute provides that statewide teacher organizations may submit a list of recommended nominees to the governor for consideration.
- 6** Alaska PERS: Two members of the board are members of the system elected for 6-year terms by a majority of the votes cast by members of the system.
- 7** Arkansas ATRS: By statute there are 7 active and 3 retiree slots, as well as 1 minority position, which may be filled by an active or retired member. Of the 7 active slots, 4 positions must be filled by active certificated (but not administrator's certificate) members, 2 positions must be filled by active members holding an administrator's certificate (1 of whom must be a superintendent), and 1 position must be filled by a non-certificated active member.
- 8** California UCRS: The plan trustees are the University of California Board of Regents. There are 26 regents, 18 appointed by the Governor for 12-yr terms, 7 ex officio (Governor, Lieutenant-Governor, Speaker of the Assembly, Superintendent of Public Instruction, President of the UC Alumni Association, Vice-President of UC Alumni Association, and the President of the University of California system), and one student appointed by the Regents to a one-year term; there are also two non voting members (the Chair and Vice-Chair of the Academic Senate. In addition, the President of the University consults with a nine-member pension advisory board consisting of one officer of the University, 3 persons appointed by the President, the Treasurer of the Regents (or his/her designee), 2 persons selected by the Academic Senate and 2 persons elected by active members who are not in the Senate.
- 9** Colorado PERA: 4 members are employees of state employers elected by state members (at least 1 must be, but no more than 3 may be an employee of a state institution of higher learning); 5 members are employees of school employers elected by school members; 2 are members of the municipal division elected by members of that division; 1 is a member of the judicial division elected by members of that division; and 2 are retirees elected by retired members.
- 10** Connecticut SERS: Includes 3 actuaries. All are appointed by the governor; however, 1 actuary is nominated by the 6 management trustees, 1 is nominated by the 6 trustees representing employees, and 1 is a neutral nominated by the employee and management trustees.
- 11** Georgia PSERS: Board is composed of 7 ERS board members and 2 others appointed by the governor.
- 12** Illinois IMRF: 4 board members selected by employers – they must also be members of the system.

- 13** Iowa PERS: The IPERS is a division under the state Department of Personnel. An 11-member Investment Board serves as trustee for the trust fund. The Investment Board consists of 3 public board members appointed by the Governor who are system non-members and who have substantial investment or financial experience, 1 active school employee appointed by the Governor, 1 active non-school employee appointed by the Governor, 1 retired system member appointed by the Governor, the state Treasurer and 2 nonvoting legislators from the state House and 2 nonvoting members from the state Senate appointed by each respective chamber's presiding officer. In addition, there is a separate Benefits Advisory Committee which consists of 5 employer association representatives, 1 employer/member association (school administrators) representative, 1 public member and 7 member (active, vested and retired) association representatives.
- 14** Kansas PERS: One trustee elected by school retirement system members and one trustee elected by non-school retirement system members.
- 15** Maine MSRS: Retired teacher appointed by governor from list of 3 provided by MRTA.
- 16** Maryland MSPRS (TRS, TPS, ERS, EPS): State police board member elected by constituents may be either an active or retired member. Two teacher board members: one elected active member and one elected retired member.
- 17** Michigan MPSERS: Two classroom teachers or other certified school personnel; 1 non-teacher working in a non-certified educational support position, 1 member who is a school system superintendent, 1 member who is working in a finance or operations management position but who is not a school system superintendent, and 1 administrator of a community college.
- 18** Michigan MPSERS: One retired classroom teacher and one retiree from a finance or operations management position.
- 19** Mississippi PERS: Two members are elected by retirees and 2 members are elected by active state employees. One member each is elected by county employees, public school and community/junior college employees, institutes of higher learning employees, and municipal employees.
- 20** Nevada PERS: Includes 3 active employee members, 3 employer members, and 1 retiree.
- 21** New Hampshire NHRS: Eight members are appointed by the governor after nomination by member groups.
- 21** New Jersey TPAF: Elected by other six board members.
- 23** North Dakota TFFR: A separate state investment board is responsible for the investment of trust assets. Three of the trustees are elected by the TFFR board to serve on the North Dakota State Investment Board.
- 24** North Dakota TFFR: Two active teachers and 1 school administrator.
- 25** North Dakota PERS: A separate state investment board is responsible for the investment of trust assets. Three members of the ND PERS board are included in the membership of the state investment board. The ND PERS board has specified that the members who serve on the state investment board are to be elected from among the 4 elected members of the ND PERS board.
- 26** Oklahoma TRS: Includes 2 active classroom teachers.
- 27** Pennsylvania PSERS: Includes 3 active certified employee representatives, 1 active non-certified employee representative, 1 retired representative, and 1 school board representative.
- 28** Pennsylvania SERS: Includes 4 legislators.
- 29** Pennsylvania PMRS: Nine nominated by constituent groups, including 1 active fireman and 1 active policeman nominated by the associations representing municipal fireman and municipal police.
- 30** Rhode Island ERSRI and MERS: Includes 2 active teacher representatives, 2 active state employee representatives, and 1 active municipal employee representative.
- 31** South Dakota SDRS: Includes two active teacher members.
- 32** South Dakota SDRS: Non-voting member who is a representative of the South Dakota Investment Council.

- 33** Tennessee CRS: 3 teachers, 2 state employees, 3 local government members; ex-officio members of the board are also currently active employees.
- 34** Texas TRS: Two trustees are appointed by the governor from the 3 public school district active members nominated for each position by employees of the public school districts; 1 trustee is appointed by the governor from the 3 higher education candidates nominated by employees of institutions of higher education; and 1 trustee is appointed by the governor from the 3 retired member candidates who are nominated by retired TRS members.
- 35** Utah SRS: Includes 1 school employee and 1 general public employee.
- 36** Washington TRS, PERS, SERS: There is a separate State Investment Board with the sole responsibility for the investment of all retirement trust funds, which consists of 9 voting members including 1 active member from PERS, 1 active member from TRS and 1 active member from the law enforcement officer and firefighter fund (LEOFF), as well as 1 retired member from 1 of the 6 systems administered by the state. In addition, there is an Employee Retirement Benefits Board that includes 2 active PERS members, 2 active TRS members, 1 retired PERS member and 1 retired TRS member among its 9-member board and that, among other responsibilities, selects self-directed investment options for TRS Plan 3 members and selects investment options for the deferred compensation program. There is also a 12-member State Advisory Committee to the Director of the Department of Retirement Systems (on retirement administration issues) which consists of 3 active and 1 retired PERS members, 1 active law enforcement officer, 1 active firefighter, 1 retired law enforcement officer or firefighter, 1 active teacher, 1 active TRS member who is an administrator, 1 retired TRS member, 1 active Washington State Patrol Retirement System member, and 1 Judicial Retirement System member.
- 37** West Virginia TRS, TDC, PERS: Consolidated Public Retirement Board which oversees plan administration. In addition, there is a separate 13-member West Virginia Investment Management Board (WVIMB) which oversees the investments of the TRS defined benefit plan, the PERS defined benefit plan, the State Police Plan B, the Department of Public Safety Retirement Plan, the Judges Retirement Plan, the Deputy Sheriff's Retirement Plan and the Insured Assets of the State (e.g., Workers Compensation) and Endowment Assets. No active members of these retirement systems serve on the WVIMB; however, one representative of the West Virginia Federation of Teachers and one representative of the West Virginia Education Association currently serve on the WVIMB.
- 38** Wisconsin WRS: Data in table are for Employee Trust Funds Board. Separate Teachers Retirement Board (13 members) and Wisconsin Retirement Board (9 members) advise Employee Trust Funds Board on retirement matters and approve administrative rules and new disability benefit efforts.

Select Committee on Pension Policy
Errata
Characteristics of 100
Large Public Pension Plans
(May 17, 2004)

Page 12

| State / Fund | Early Retirement Age/Service | Early Retirement Annual Discount |
|----------------------------------|-----------------------------------------|-----------------------------------------------------------|
| Washington/TRS - Plan 2 | 55/20 55/30 | Actuarially reduced 3% per year |
| Washington/TRS - Plan 3 (DB) | 55/10 55/20 55/30 | Actuarially reduced Actuarially reduced 3% per year |
| Washington/SERS - Plan 2 | 55/20 55/30 | Actuarially reduced 3% per year |
| Washington/SERS - Plan 3 (DB) | 55/10 55/20 55/30 | Actuarially reduced Actuarially reduced 3% per year |
| Washington/PERS - Plan 2 | 55/20 55/30 | Actuarially reduced 3% per year |
| Washington/PERS - Plan 3 (DB) | 55/10 55/20 55/30 | Actuarially reduced Actuarially reduced 3% per year |

Page 22

Footnote 137 should reference all TRS plans, not just TRS 3.

Page 26

Washington information does not make reference to PERS 1 and TRS 1 Uniform COLA.

Page 60

Funded ratios in Washington's plan 2s and plan 3s are combined.

| State/Fund | Funded Ratio |
|---------------------------|---------------------|
| Washington TRS - Plan 2/3 | 182% |
| Washington PRS - Plan 2/3 | 158% |

Amortization date for PERS 1 and TRS 1 is June 30, 2024 – this table shows the period.

Salary Growth Assumed column uses ranges from 4.5% up to 11.5%. Washington uses 4.5% inflation assumption for salary growth with the remainder being merit and longevity.

With the legislation passed last session, the Asset Valuation Method is now Market 8-year Smoothing.

Current Public Pension Issues

A Presentation to the Select Committee
on Pension Policy
Washington Legislature



Olympia, Washington

May 18, 2004

Ronald Snell

National Conference of State Legislatures



About this Presentation

- Issues in This Presentation
 - State Budgets and Pension Funding
 - Adequacy of Pension Benefits
 - Teachers' Retirement System Reciprocity
 - Defined Benefit and Defined Contribution Plans
 - Return to Service and Retirement Age

A close-up, grayscale image of several US coins, including quarters and dimes, overlapping each other. The coins are the background for the title text.

Budgets and Pensions Finance

- State fiscal conditions are improving
 - Mixed improvements in revenues (not everywhere)
 - Sales taxes are improving more than income taxes
 - Surprising improvement in corporate income taxes
 - Medicaid and health care costs continue to exceed expectations



Pension Finance

- The condition of pension trust funds has been the major 2004 pensions issue.
 - Funds were hit hard by the fall in value of investments from 2000 on.
 - Some major funds have returned to 2000 levels—in California both CalPers and CalStrs have surpassed earlier valuations
 - Many others continue to struggle for a variety of reasons



Pension Finance

- Improvements in asset values don't always mean overall improvement.
 - Calpers investments earned over 23% in 2003, and the fund holds \$166 billion, but annual state payments into the system have ballooned from \$160 million in 1999-2000 to \$2.6 billion this year.



Pension Funding

- Smaller, very well-managed, state plans also need substantial contribution increases.
 - Iowa (IPERS) earned 20%+ in 2003, has asked for employer contributions to be increased from 5.75% to 9.75% over four years.
 - Colorado (PERA) employer contributions will gradually increase from 9.9% to 12.9% in 2012.



Pension Funding

- Such requests have put significant pressure on state and local budgets.
 - CalPers has floated a plan to allow local governments to delay full increases for several years, so long as local governments pay at least 120% of the FY2004 levy in FY 2005.
 - Governors of NY, IL and PA have recommended postponing state and local increased contributions.
 - Michigan school districts are protesting increases from 13% to 15% of salaries.



Pension Funding Issues

- Investment values are only one issue
 - Early retirement incentives have proved more costly than expected—
Illinois is an example
 - Outdated actuarial assumptions about longevity—
Oregon and Iowa are examples
 - Some major cities' systems adopted too generous DROP plans – problems in Houston, Philadelphia and San Diego have been widely publicized



Pension Funding Issues

- These are not necessarily long-range, fundamental issues for state systems.
- Public pension funding operates in a 25-year to 30-year time frame.
- “Smoothing” asset values presently reflects lower values of the first years of this century.



Pension Funding

- Wilshire Report on state funding levels, for example, contributes to misunderstanding.
 - It's a major annual report by a Los Angeles investment consulting firm.
 - Stresses the underfunding of pension plans, without explaining the long time frame over which plans can address the issue.



Adequacy of Pension Benefits

- Adequacy is the question how well retirement benefits replace income.
 - Two questions:
 - How well do benefits replace income at the time of retirement?
 - How well are retired people protected against the erosion of the value of their income over time?



Adequacy of Pension Benefits

- Only Nebraska has recently released a study of adequacy.
 - In 1993 and in 2000, it had studies done for its systems covering state and local employees.
 - Calculated income needed to replace earned income (about 85% for state employees at time of retirement).
 - Looked at inflation protection
 - Showed a need for changes in its DC plan to provide retirees long-term income security.



Adequacy of Pension Benefits

- Cost-of-living increases
 - About 75% of statewide plans provide automatic COLAs.
 - Most are like Washington's – tied to an index of the cost of living, and capped at some level.
 - Social Security benefits also protect against inflation, and states whose public employees are not in Social Security tend to provide higher, guaranteed COLAs.



Reciprocity for Teachers

- Reciprocity refers to transfers of pension credit between states.
- Most state systems allow teachers to buy some credit for service in another state, usually after meeting some service requirement in the new state.
- No interstate automatic reciprocity exists.

The top of the slide features a background image of several coins, likely US quarters, showing the profile of George Washington and the word "QUARTER".

Defined Benefit/ Defined Contribution Plans

- Defined benefit plans are by far the most common type for mandatory state-wide plans for public employees and teachers.
- Widespread interest in DC plans in the 1990s
- Two states closed a state DB plan to replace it with a DC plan:
 - West Virginia Teachers, 1990
 - Michigan Public Employees, 1997



Defined Benefit/ Defined Contribution Plans

- A number of states added a DC plan as an optional choice for existing and new members, in some cases with an option to change after making an initial choice:
 - Florida, Montana, North Dakota, Ohio, South Carolina.
- A few states have created hybrid plans like Washington's PERS Plan 3:
 - Indiana (of long standing); Ohio (since 2000); Oregon in 2003.
- Many states have DC plans for specified employees, like higher education or elected officials.



Defined Benefit/ Defined Contribution Plans

- Few DC plans have been created since 2000.
 - Oregon created its hybrid on the model of PERS Plan 3 in 2003, to help address funding problems in older plans.
 - Colorado, under 2004 legislation, will add two DC plans as options for new state employees in 2006.



Return to Service

- Restrictions on return to covered employment are diminishing.
 - A response to labor shortages.
 - What about “double –dipping?”
 - One response is that the pension was earned as part of compensation for earlier employment.
 - Practice focuses on teachers but is spreading to public safety personnel, and general employees.



Return to Service

- Limitations on Teachers' return (TN, 2001)
- district certification that no other qualified person is available;
- that the area is certified as lacking qualified teachers;
- the returning teacher is not eligible for tenure or additional retirement benefits;
- appointments are for one year at a time;
- certain salary limitations.



Return to Service

- Other Restrictions:
 - Must have reached age for normal retirement (IN and VA, 2001).
 - No additional retirement service credit (many).
 - Replaces someone in military service (CO, 2003).
 - Only part-time or short-term employment (many).
 - Must return to *same* position and employer (AZ, 2000).
 - Must return to a *different* employer (MD, 2001).
 - District must pay employer contribution, but employee receives no service credit (GA, 2002).



Retirement Age

- Return to service is a growing issue partly because normal retirement ages are falling.
 - 26 of the 100 largest systems allow normal retirement at 62 with 5 or more years of service.
 - 56 allow normal retirement at 60 with 5 or more years of service.
 - 56 allow early (reduced benefits) retirement at 55 with 5 or more years of service.
- The national trend for more than 20 years has been to reduce normal retirement ages.

where policy clicks

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Federal Legislative & Regulatory Initiatives on Public Sector Plans



Select Committee on Pension Policy

May 18, 2004

Olympia, Washington

Gerri Madrid-Davis

Office of State Federal Relations

NCSL

108th Congress, 2nd Session

Where We Started...

- Portman–Cardin Bill Derailed During Committee Consideration
- Senate “NESTEG” Bill Passed Committee, No Floor Action
- 30-Year Treasury/Cash Balance Issues Overshadowing Other Pension Legislation
- President’s Proposals Dominating Broader Pension Policy Discussions

Administration's Savings Proposals

- **Long-Term Savings Accounts (LSAs)**
 - \$5,000/yr after-tax, tax-free distributions, no holding period, no income cap, can be used for any purpose
- **Retirement Savings Accounts (RSAs)**
 - \$5,000/yr after-tax, distributions after age 58 tax-free
 - No minimum distributions, no income limits (100% of comp still applies)
- **Employer Retirement Savings Accounts (ERSAs)**
 - Combines all employer account plans (401(k), government 457, 403(b), SIMPLE, SARSEP, etc.)
 - EGTRRA contribution limits apply (\$15K in 2006, catch-up contribution of \$5K in 2006, etc.)
 - Unresolved Issues: special 457 and 403(b) catch-up rules, 10% penalty to 457 plans, Nondiscrimination testing for governmental plans, coordination requirements

New Part of President's Proposal:

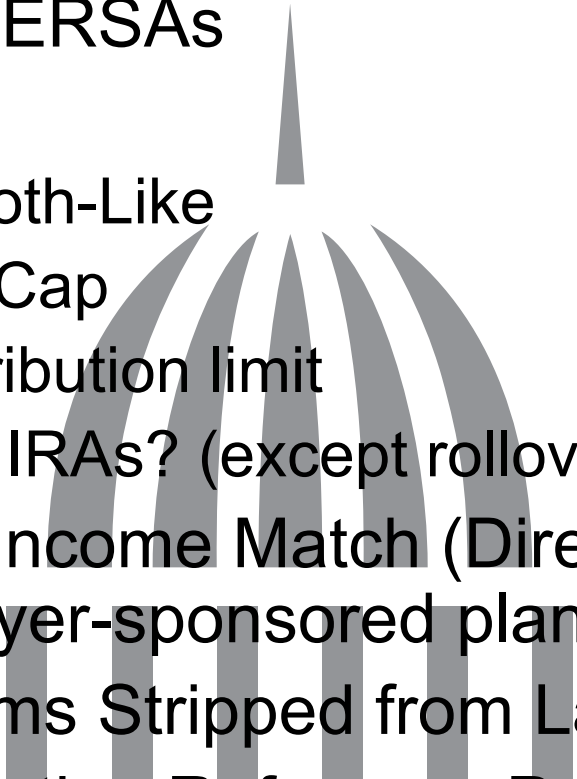
- **Individual Development Accounts (IDAs)**
 - 1 to 1 matching contributions up to \$500 (for individuals <\$20K income, through 100% tax credit for sponsoring financial institutions that provide matches)
 - A \$50 per account credit for financial institutions to cover ongoing costs of maintaining/administering account and providing financial education
 - Qualified withdrawals of contributions and matching funds for higher education, first-time home purchase, and small business capitalization

Concerns About New Savings Proposals

- LSAs Could Supplant Rather than Supplement Savings
- ERSAs Sound Simple, But Could Complicate the Administration of Governmental Plans, May Not Account for State Laws and Plan Designs (Simplification may be more likely absent consolidation)
- Policies Are Very Likely a Shift Away from Employer-Sponsored Benefits potentially creating more pressure on state finances if individuals don't make the right choices and need state assistance in retirement

Possible Portman-Cardin III*

**(2004 Edition, Discussion Only)*

- 
- No LSAs, No ERSAs
 - RSAs
 - After-tax, Roth-Like
 - No Income Cap
 - \$5000 contribution limit
 - Replace All IRAs? (except rollover IRAs)
 - Federal Low-Income Match (Direct Deposit to RSAs, Employer-sponsored plans too?)
 - High-Cost Items Stripped from Last Bill
 - New Simplification Reforms a Possibility

New Simplification Under Discussion:

- Federal Match to Supplemental Plans (No Need for RSA to Get Match)
- Removal of special catch-ups (would phase in to just be 50+ catch-up)
- 401(k) Plans for Governments
- ***Not Under Discussion, but raised by some governmental administrators:***
 - 457 Roth (Could Replace the Need for Deemed IRA)
 - Employer Match to 457 (No side-car 401(a))
 - Problematic Issues with Vacation and Sick Leave

Possible Carry-Over from Last Year's Bill (HR 1776):

- Clarifying many permissive public-sector purchase of service credit provisions **
 - 415(n) Limits Not Applicable to 403(b)/457(b) Transfers
 - DB Distribution Rules Apply to Transferred Amounts
 - No Period of Service Requirement (i.e. airline, early retirement incentives, formula enhancements, etc. are permitted)
 - Tier to Tier Transfers Permitted
 - More Types of Educational Service May Be Purchased
 - *Working on Legislative History to specify this is a **clarification of existing law.***

Possible Carry-Over from Last Year's Bill (HR 1776):

- Providing **minimum distribution regulations** for governmental plans under which they can operate on a good-faith interpretation of the Code OR current/future/proposed Regulations
 - Temporary and Proposed Minimum Distribution Regulations “Delayed Until Further Notice” (IRS Notice. 2003-02) Would Have Affected Types, of Payouts, Beneficiaries, and COLAs.
- Removing the 10% early distribution penalty on certain DROP distributions of public safety employees**
- Allowing after-tax contributions/rollovers to governmental plans
- Floor Benefit Limit for Governmental Employees Retiring at Age 55

Provisions NOT Expected to Carry Over:

- ***EGTRRA Permanency***
- ***Tax benefit to Retirees Receiving Annuities (Chairman's Mark was for First 5 Years of Lifetime DC Annuities Only)***
- ***New Section 459 for nongovernmental 457 plans (private sec 457 effort)***
- ***RETIREE health care conversion plans***

Senate Enron-Related Bill (NESTEG)

- ❖ Permissible Purchases Of Service Credit
- ❖ Relief From Minimum Required Distribution Regulations
- ❖ Lowering the age at which certain public safety officer benefits may be distributed without penalty.
- ❖ Excludes Governmental Plans from New Notice and Disclosure Requirements
- ❖ *No Age 55 floor*
- ❖ NESTEG Passed Senate Finance Committee Sept. 2003, No Further Action Scheduled, Bill filed May 4, 2004
- ❖ HR 1000 (Enron-Inspired Reporting & Disclosure) Passed House, Includes Governmental Plan Reporting in Modified Form, No Further Action Scheduled

House-Passed Guard/Reservist Bill

- **H.R. 1779 (Guardsmen and Reservists Financial Relief Act of 2004)**
 - Would allow members of the reserves and National Guard who are called to active duty for more than 180 days to make **penalty-free withdrawals from certain types of retirement accounts: IRAs, pre-tax contributions to 401(k)s and certain 403(b)s**
 - ***Would not apply to governmental section 457(b) plans***
 - Repayments could be made to an individual's IRA during the two-year period following the individual's active duty period without being subject to IRA limits.
 - The contributions would NOT be deductible and could not be made to the individual's 401(k) plan or 403(b) contract.
 - The provisions would apply to individuals ordered or called to active duty after September 11, 2001, and before September 12, 2005

Social Security Program Protection Act (H.R. 743, P.L. 108-203)

- Original Senate Version Modified Form 1099R to Indicate Whether a Pension Is Based In Whole or Part on Work Not Covered by Social Security
- Would have Raised \$2.2 Billion Through Heightened Enforcement
- Not in final bill. Included in President's FY 2005 Budget



H.R. 743/P.L. 108-203

- **New Notice Requirement for New Hires 1/1/2005**
- Prescribed by SSA, Furnished by Employer, Signed by Employee Before Beginning Employment
- Copy to be Sent to SSA AND Pension System (Concern over Future Reporting Requirements)
- Concern over Potential Tone of Notice
(language retained directing SSA to inform participants “about their options to avoid [GPO/WEF] provisions by electing coverage under the Social Security program”)
- **New SSA Benefit Notices More Accurately Informing Participants Regarding GPO/WEF by 1/1/2007**

GPO Loophole

- Modifies the “Last Day” Exception to GPO to Last 5 Years of Employment (with transition rules)

Divided Retirement System

- Extends Authority to Kentucky and Louisiana to Operate a Divided Retirement System for Social Security Coverage...whereby a Referendum Could Be Held and Employees May Individually Choose Whether They Want Social Security Coverage, Provided That All Newly Hired Employees Are Required to Participate in Social Security. Legislature retains the authority to authorize a referenda.

Use of Social Security Numbers



GAO Report and Hearings Recently Held on Misuse of Numbers

Proposals to Limit Use:

- Could not Use SSN on any Check Issued for Payment
- SSN Could Not be Displayed on Badge
- SSN or Derivative Could not be Displayed or Sold

Working on Employment Exception to Restrictions or Ensuring Retirement Operations are Excluded from Definition of “Display” or “Sale”

Strongly consider removing SSN from anything sent in mail, particularly check stubs.

Bankruptcy Protections for Pension Assets

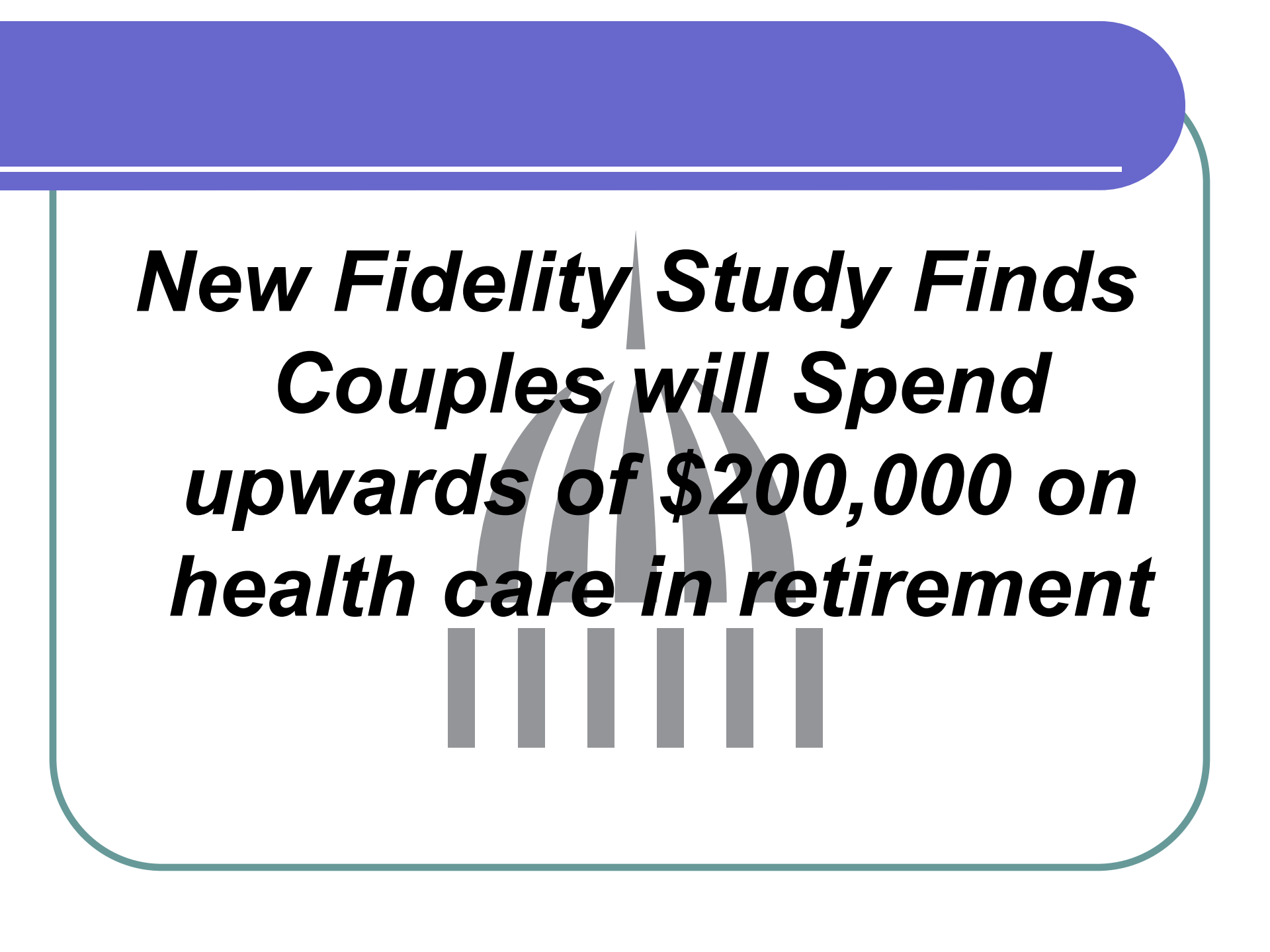
HR 975 Passed House 3/19/03, Nearly Identical to Last Session's Conference Agreement

Codify Existing Favorable Case Law Regarding the Protection of Public Pension Assets

Remedy Conflicts That Have Arisen Regarding Treatment in Bankruptcy of:

- Governmental 457 Plan Assets
- Mandatory Public Employee Pension Plan Contributions
- Pension Plan Loans

Helpful Language Recently Added to Ensure This Supplements and Does Not Supplant Existing Case Law



***New Fidelity Study Finds
Couples will Spend
upwards of \$200,000 on
health care in retirement***

Retiree Health Care

- Medicare Rx Drug Act: Public Sector plan issues resolved favorably with regard to issues of “plan sponsor” and Part B only
- Proposals Forwarded Last Year:
 - Retiree Premium Conversion Plans
 - Partial Rollovers to Flex Accounts
 - Tax-Free Distributions from Retirement Accounts for Qualified Medical Purposes
- GASB’s OPEB Exposure Draft (2007)
- EEOC: Medicare Bridge Plans (KY Disability Benefits case, Phase retirement, cash balance)

Institutional Investor Issues

- Investments with Hidden Terrorist Links
 - New SEC Office of Global Security Risk
 - “60 Minutes” Report Fueling Interest
- Mutual Fund Regulation
- Access to Proxy
- Stock Option Expensing (HR 3574 Would limit it to CEO and top 4 Execs)
- Pay-to-Play/Soft Dollars
- Challenging corporate governance arrangements, including
 - Compensation of board and top staff
 - Accounting/consultant relationships
 - Access to corporate proxies

Phased Retirement

- **Bona Fide Break in Service Questions (“Clear Grey Area”)**
- **Definition of Normal Retirement Age, When In-Service Distributions Permitted, What About Early Retirement?**
 - Treasury Proposal Out Within the Year?
 - Special Rules for Governmental Plans?
 - Could Return to Work and Phased Retirement be Built Around Normal Retirement Age? Early Retirement Age?
 - If So, May Need Change to 72(t) 10% Penalty
 - Pentagon Recently Adopted Return to Work Policy

Outlook?


- Pension Provisions are on the Appropriate “Lists” of Action Items, However...
 - Federal Campaign Season Underway (Presidency, 34 Senate Seats, 435 House Seats)
 - Tax Cuts, Rx Bills Leave Little \$\$ For Other Tax Items, Permanency of other provisions may take precedence (10% bracket, child credit, AMT, marriage penalty)

- Little Time

❖ **Never Say Never, as Administration Could Easily Jumpstart Proposals for “Investor Class”**



Educate Your Congressional Delegation!!

- 
- State and Local Plan Design and Governance are Different than Private Sector
 - Predominantly DB with Supplemental DC
 - Subject to High Degree of State/Local Regulation
 - Boards of Trustees, Employee Representation
 - Full Faith and Credit of State

Questions?

- **Gerri Madrid-Davis**
Senior Committee Director
Labor & Workforce Development
Office of State-Federal Affairs
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(202) 624-8670



Governmental DB Plans Are a Good Deal for Employers, Retirees AND Taxpayers:

- Economies of Scale, Lower Fees, Inflation-Protected, Professionally-Invested, Diversified, Can Ride out Market Fluctuations, No Underwriting Costs
- **Majority of Benefits are Paid by Investment Earnings**, Remainder paid for by Employee and Employer Contributions Over An Employee's Career
- Manages Attrition Rates; Boosts Local, State and National Economies
- Strong Supplemental Plans, Some with Employer Match
- Ancillary Benefits: Life, Health, Disability, etc.

Key Characteristics of Public Retirement Systems

- \$2.2 trillion in assets*
- 14 million active (working) members*
- \$110 billion distributed in benefits to 6 million annuitants – retirees, disabilitants and beneficiaries*
- Estimated contribution to the nation's gross domestic product of 3.3%, or \$330B (\$203 of which is value added through years of compound interest on superior DB investment earnings)**

*US Census Bureau

**Wharton Pension Research Council Draft Working Paper, *Profitable Prudence: The Case for Public Sector Defined Benefit Plans*, Anderson and Brainard

Public DB Plans as Economic Engines

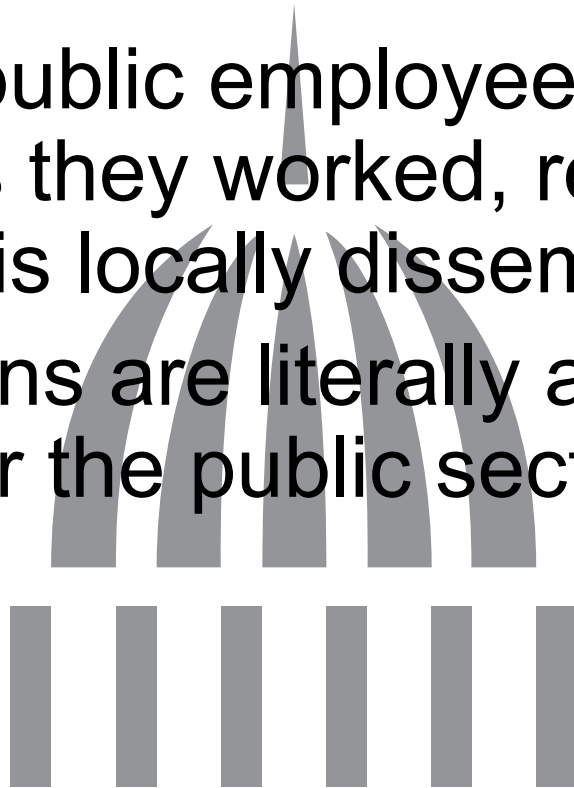
- \$2.1+ trillion in public pension assets are an important source of liquidity and stability for financial markets
 - Professionally-managed and -invested
 - Long investment time horizon
 - Public pension fund holdings (2002):
 - Global equities: \$1.2 trillion
 - US treasuries and corporate bonds: \$720 billion
 - Venture Capital (\$40 billion), which needs long-term seed money
 - Also, real estate and cash

Important Role In Macro-Economy

- Create economic stimulus by generating and distributing investment returns greater than what individual investors would accrue in defined contribution plans (10.03% vs. 6.5%)
- Public pensions' economic stimulus is enhanced through economies of scale; benefit payments that are continuous, predictable and ongoing; and contain inflation protection

Great Return on Taxpayer Dollars

- Most retired public employees live in the same area as they worked, resulting in stimulus that is locally disseminated
- Public pensions are literally a good investment for the public sector



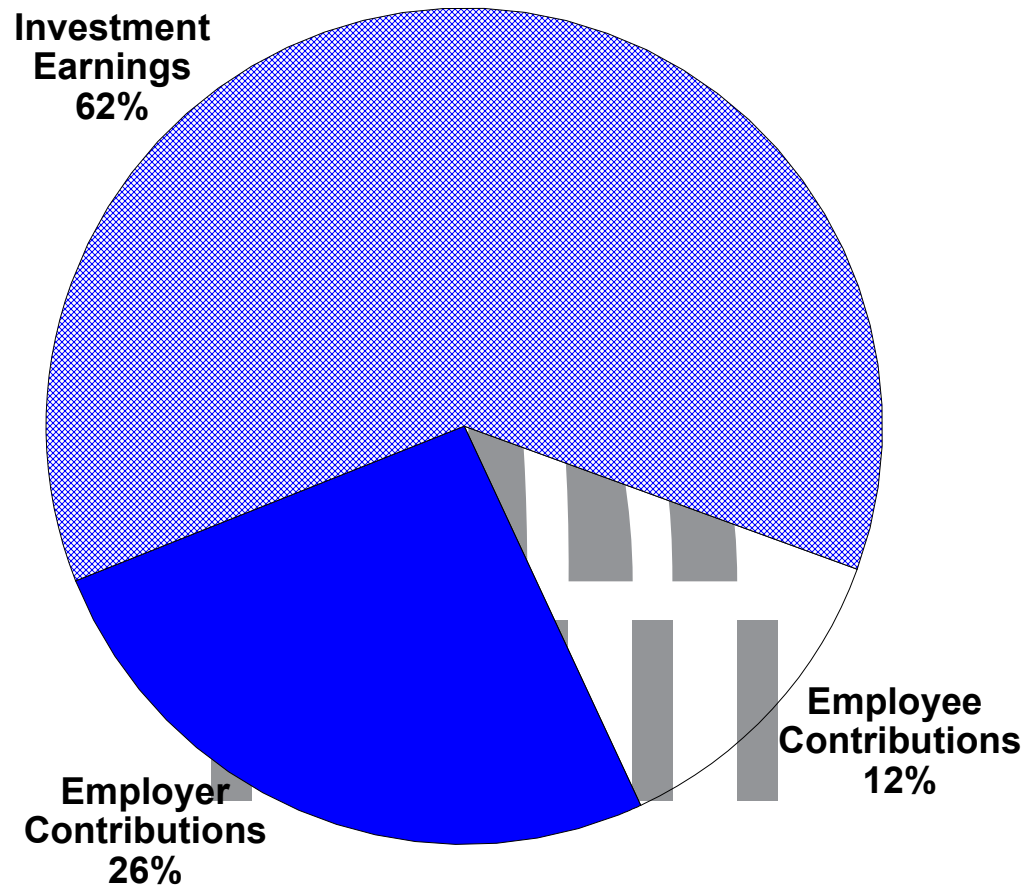
Contributions & Benefits Snapshot

In 2002:

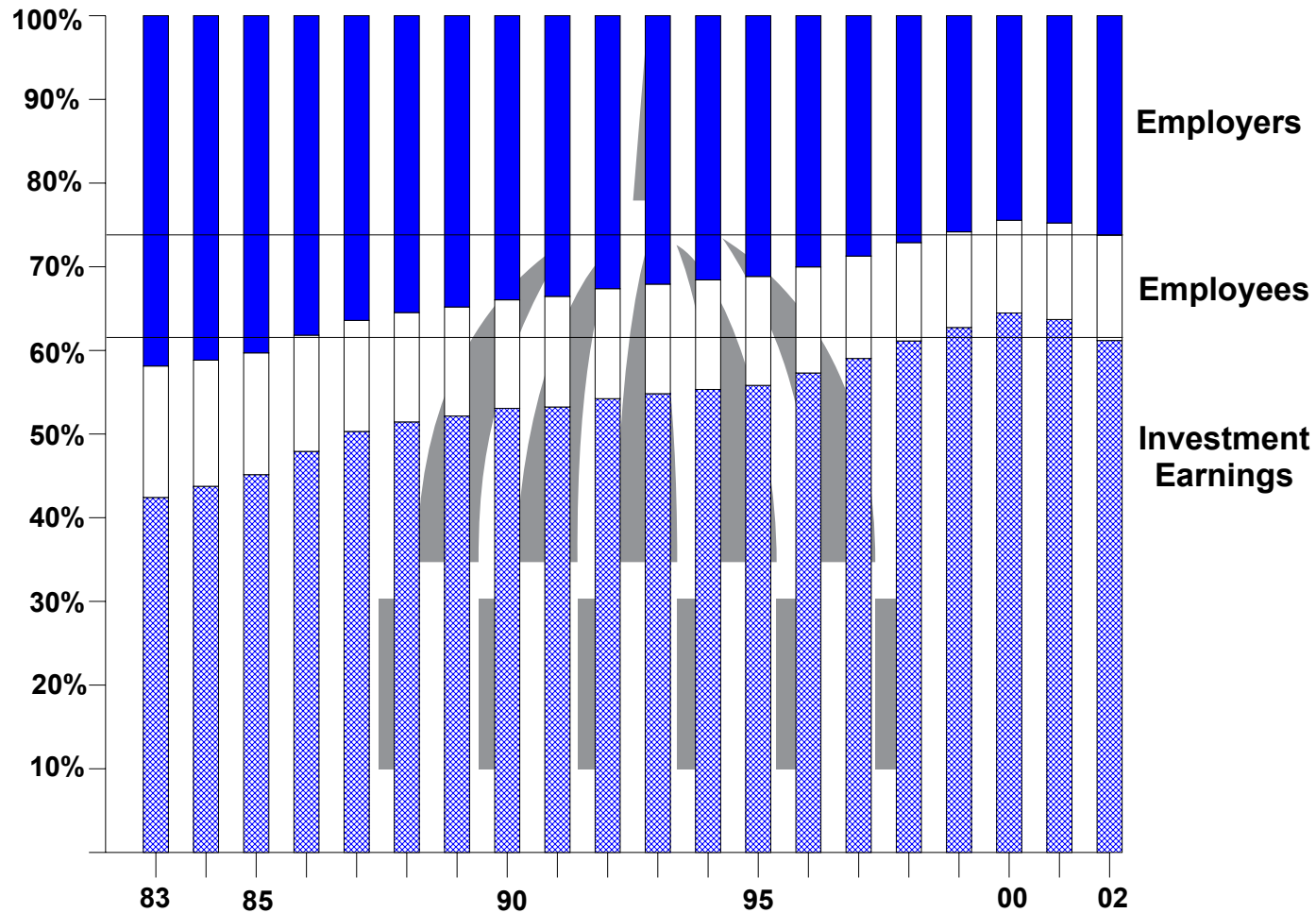
- Annual contributions = \$66 billion
 - Employers: \$39 billion
 - Employees: \$27 billion
- Annual benefit payments = \$110 billion
 - Exceeds the combined annual economic output of 22 states

Sources of Public Pension Income

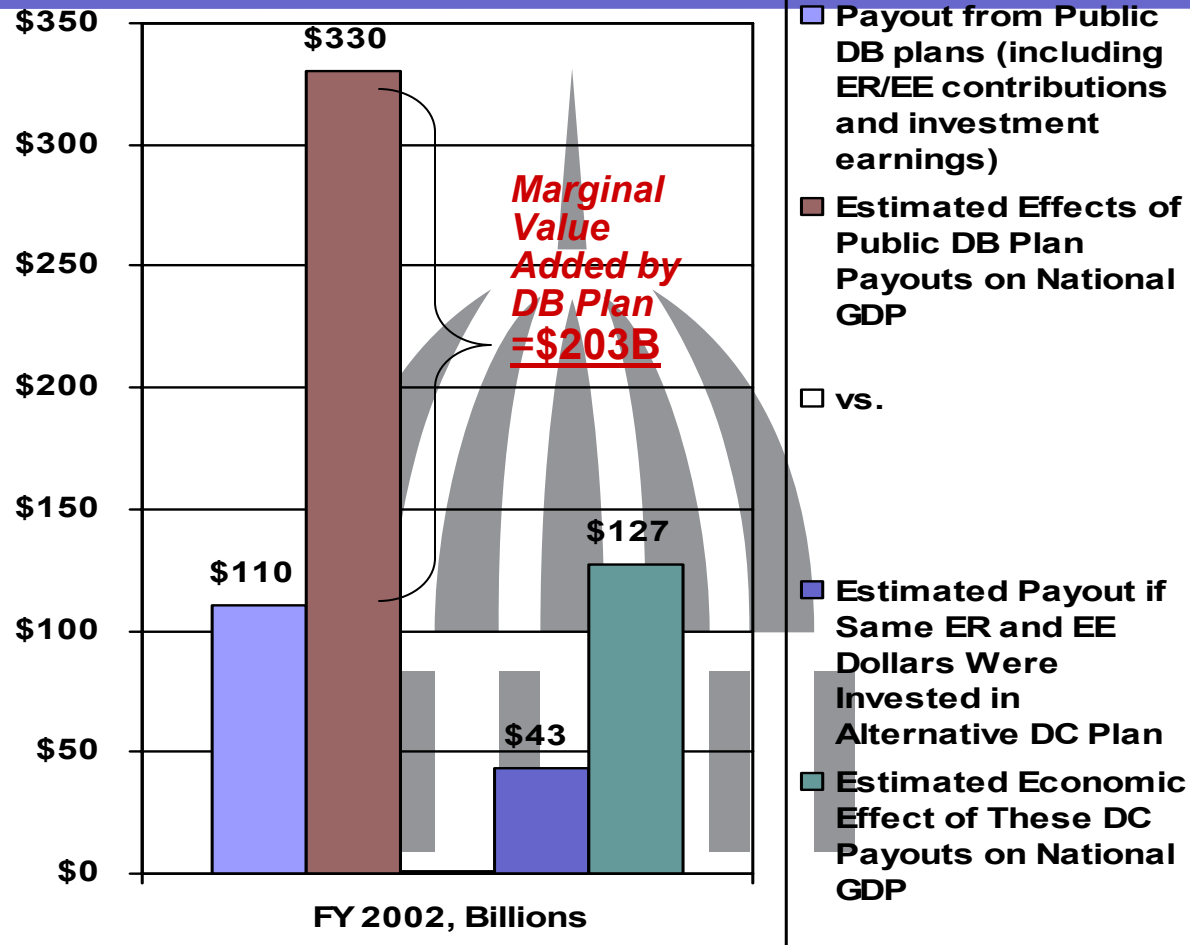
FY 83 to FY 02



Public DB Plans: Cumulative Sources of Income FY 83 - FY 02



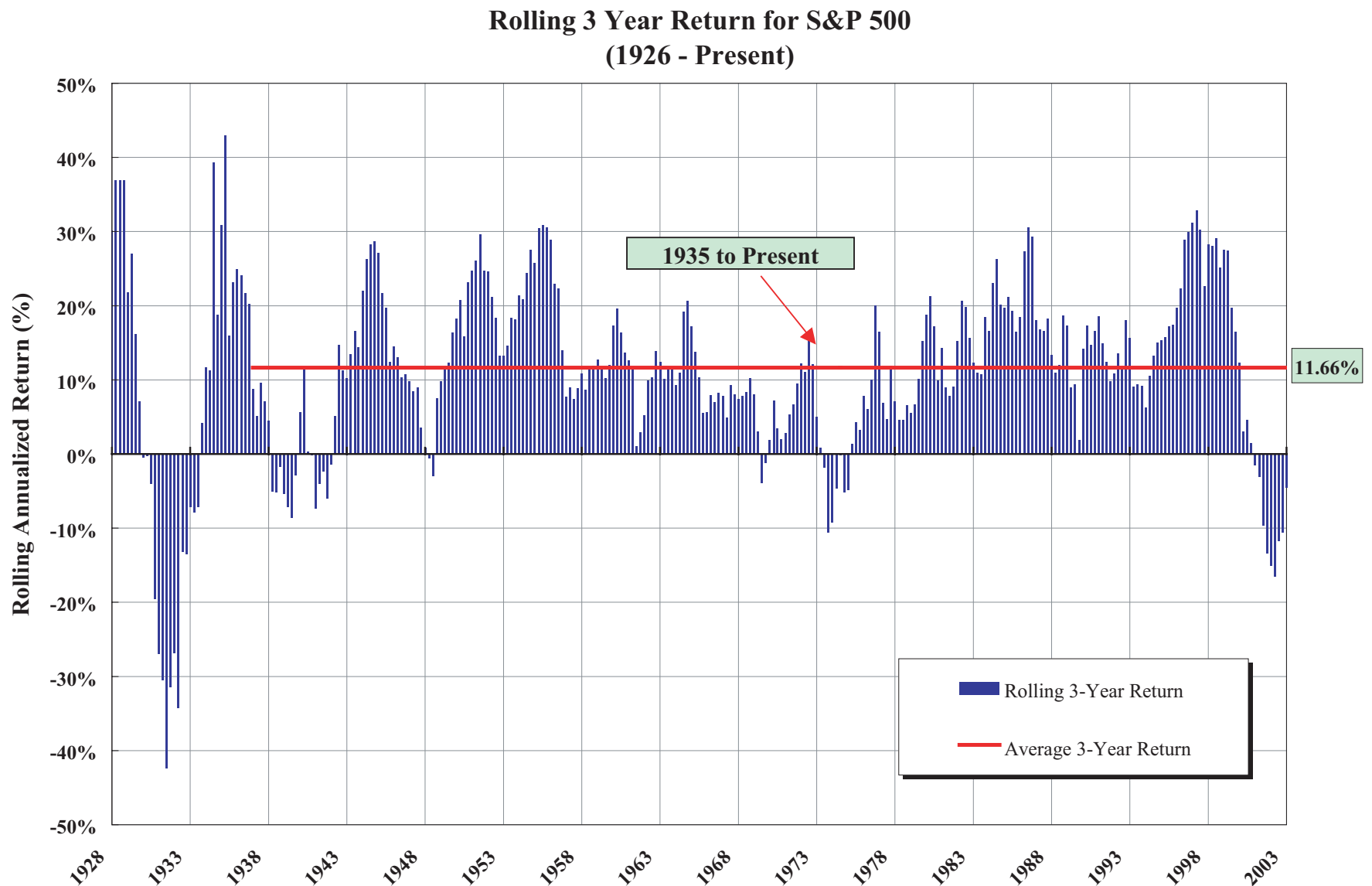
Marginal Value of DB Plans on the Economy



Source: Wharton Pension Research Council Draft Working Paper, *Profitable Prudence: The Case for Public Sector Defined Benefit Plans*, Anderson and Brainard

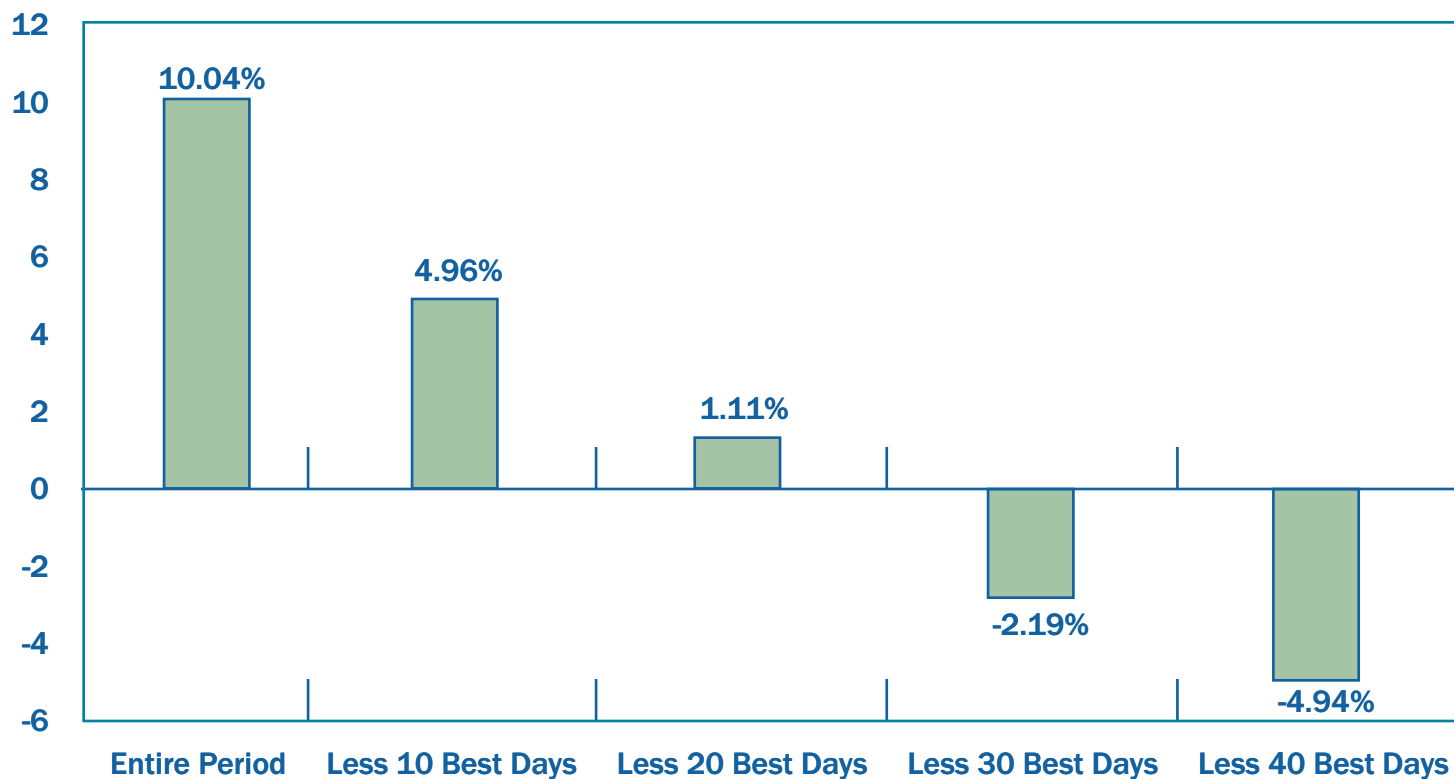
Public Pension Governance

- Policymakers, the media, and the general public are increasingly aware of public pensions
- However, there is still little understanding of the policies, macro-economics and funding behind public plans
- Good governance is critical to ensuring support for these programs
- Also critical to ensuring ERISA is not applied to public plans (preemption of State regulation)



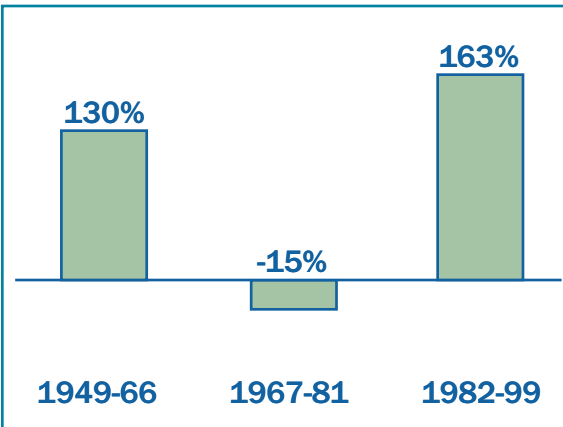
Trying to Time the Market...

The Penalty for Missing the Market
September 30, 1993 to September 30, 2003

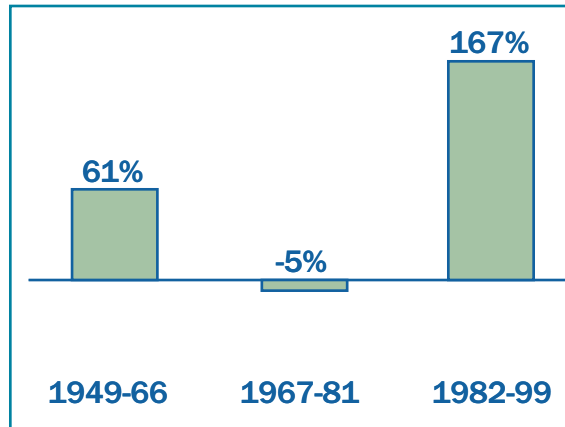


Source: FactSet Research Systems. Performance numbers based on monthly total returns of the S&P 500 minus the best 10, 20, 30 and 40 days. Due to recent significant market volatility, results of an investment made today may differ substantially from the historical performance shown. The S&P 500 Index is an unmanaged index considered representative of the U.S. stock market. Performance reflects reinvestment of dividends. An investment cannot be made directly in an index. This information is for illustrative purposes only and does not reflect the performance of any INVESCO fund. Past performance is not a guarantee of future results.

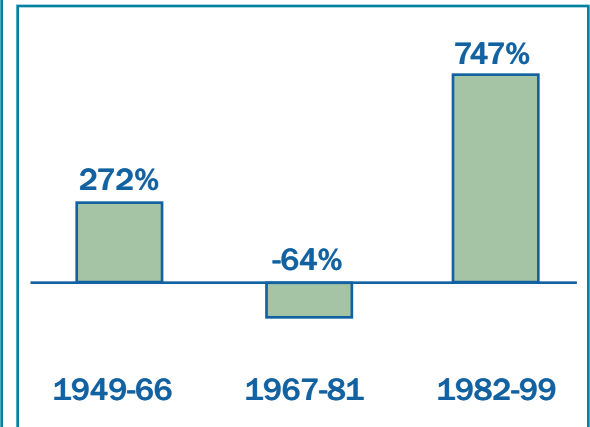
REAL NIPA PROFITS



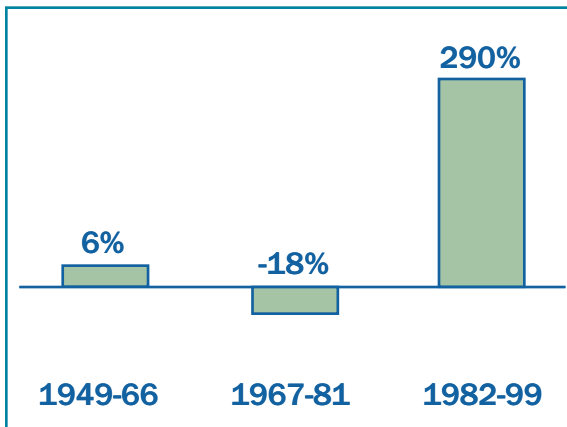
REAL S & P EPS



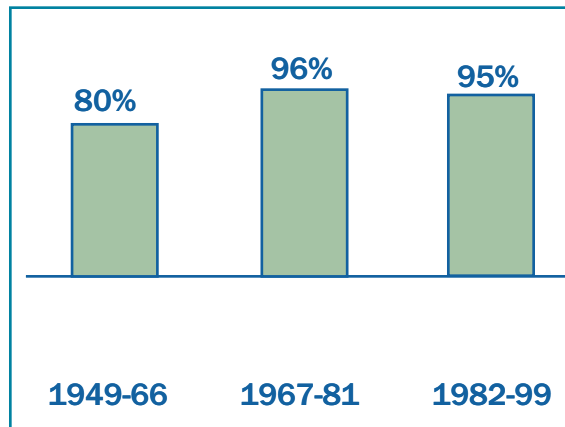
REAL D-J IND. INDEX



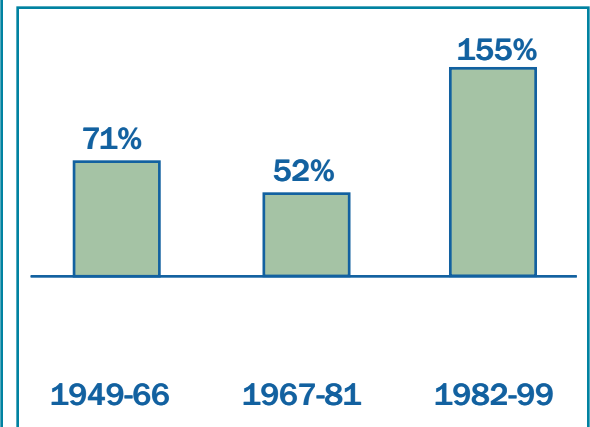
REAL BOND INDEX



REAL HOUSEHOLD REAL ESTATE ASSETS



REAL HOUSEHOLD NET WORTH



Emerging Issues in Washington

Office of the State Actuary

May 18, 2004

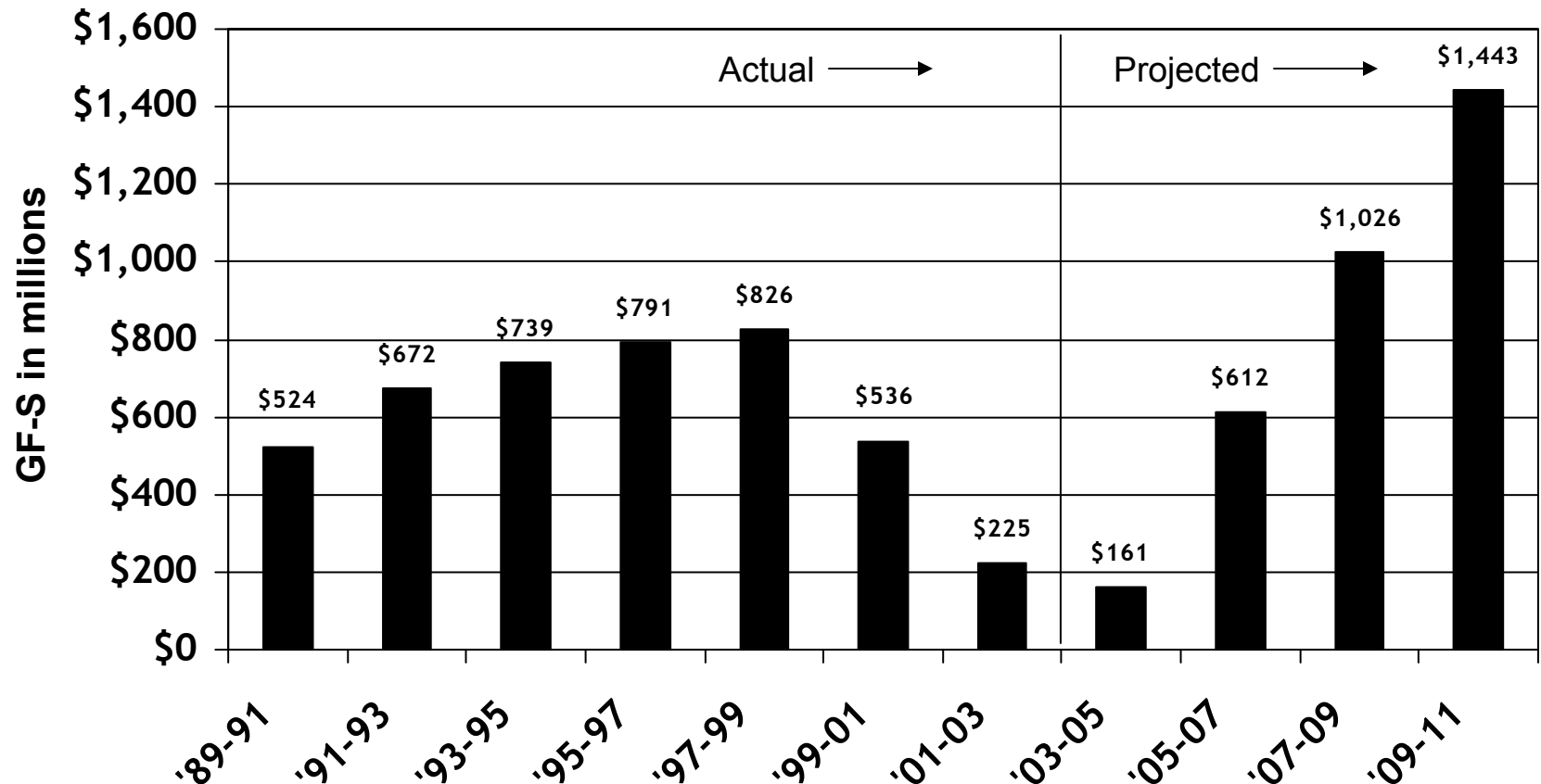
Emerging Issues - Funding

- Substantial increases in projected pension contributions for
 - Employers
 - Plan 2 members
- Unfunded liability in PERS 1 and TRS 1 is re-emerging
- “Surplus” funding in WSP and LEOFF 1 projected to revert to unfunded liability

Funding Policy

- Existing funding policy (Chapter 41.45 RCW):
 - Dependable and systematic process for funding benefits
 - Continue to fully fund plans 2/3 and WSPRS
 - Fully amortize unfunded costs in the plans 1 by 6/30/2024
 - Establish predictable long-term contribution rates
 - Fund benefit increases over the working careers of members who receive benefit

Estimated Contributions



GF-S = General Fund State

Projections based on 8% assumed rate of investment return.

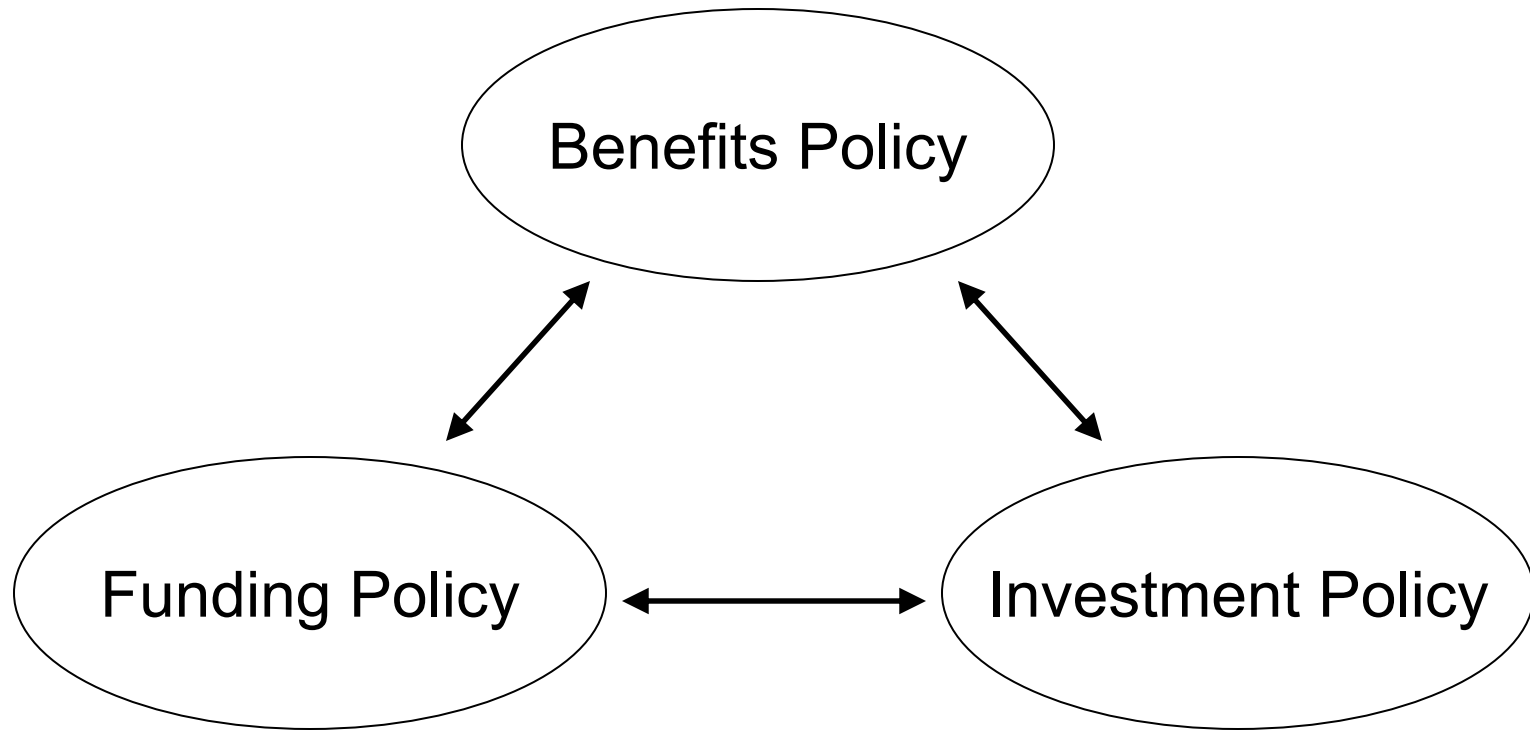
Contributing Factors

- Substantial investment gains, followed by significant losses
- Increase in actuarial discount rate
- Early adoption of contribution rate decreases
- Benefit enhancements
- Investment policy

Strategic Funding

- Manage a set of interdependent policies
 - Benefits policy
 - Investment policy
 - Funding policy

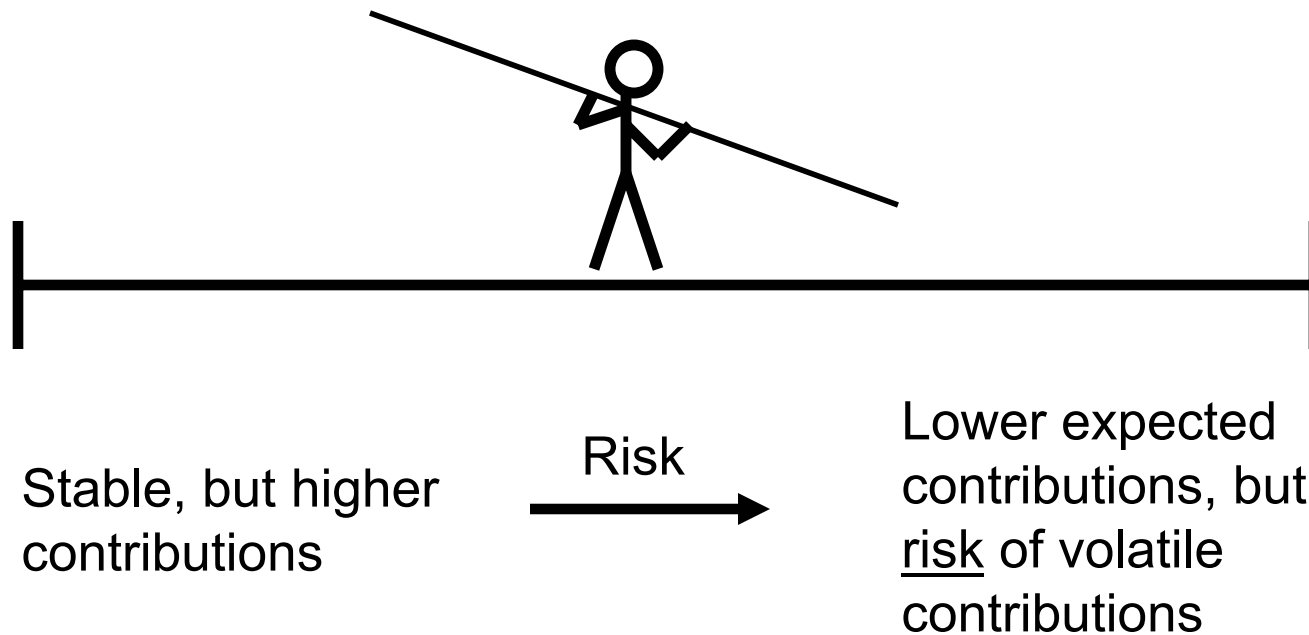
Interdependent Policies



Interdependencies

- Change in asset allocation (investment policy) impacts funding policy
- Benefit enhancements in plan 1 impact unfunded liability
- Choice of actuarial assumptions and methods impacts contribution rate stability
- “Surplus” management (benefits policy) impacts rate stability and predictability

Funding Policy Decision



Non-investment Risks

- Unpredictable contributions
 - Not coordinated with business/economic cycle
 - Negative impact on the state, employers and plan 2 employees
 - Short-term unfunded liabilities (deficits)
- “Surplus” mismanagement
 - Is the surplus permanent or unnecessary?
 - Enhanced benefits with no cost (gain sharing)
 - Plan termination
- Short-term deficits combined with “surplus” mismanagement can lead to long-term deficits

Conclusions

- Washington is facing volatile pension contributions
- This is at odds with stated funding policy
- Getting back on track will require:
 - Transitional pain (funding untimely rate increases)
 - Strategic planning (hard choices)
 - Management of interdependent policies

Select Committee on Pension Policy

Committee Member Priorities for Washington Pensions

(May 7, 2004)

In this session we will look at what each committee member thinks is the top pension priority in the state of Washington. To do that, we'll follow a process:

1. Each participant writes down what he or she thinks is the most important issue to address to provide a sound and vital pension system. The emphasis at this point is on the big picture "what is the key area," not the details of how do we solve this issue."
2. We will then split into small groups. Each person will have five minutes to present his or her key issue and to explain why this choice is a top priority. The other members should ask clarifying questions but should not debate about the appropriateness of the choice. Notes can be kept on the flip chart and Bruce will track the time.
3. Each of the small groups will report back to the full group on the key issues to address to ensure a sound and vital pension system
4. We will continue discussion on the points and themes raised, looking for areas of consensus and conflict.

Select Committee on Pension Policy

Committee Goals and Challenges

(May 7, 2004)

Discussion questions for the entire committee:

1. **Goals** - Building on the themes of the priorities of individual committee members, what does the committee as a whole want to address and achieve in the upcoming year?
2. **Challenges** - What obstacles will the committee need to overcome to meet the goals?
3. **Action** -What does the committee need to do to start achieving the goals? What are the "next steps?"